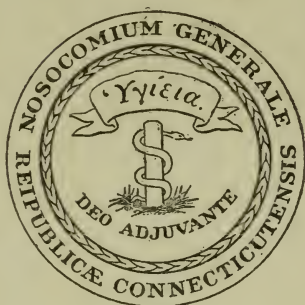


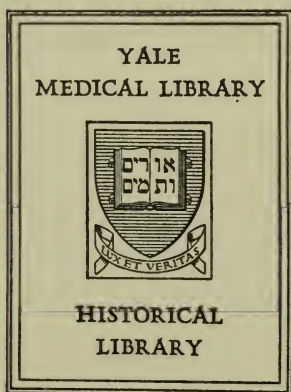
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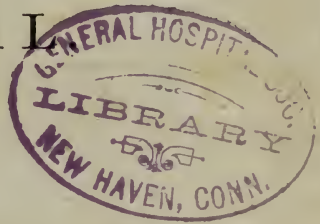




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CHLORIDES OF LIME AND SODIUM.

Observations on the Chlorides of Lime and of Sodium, and Suggestions of some Forms of Application, &c. By HENRY BELINAYE.

It is not without astonishment we contemplate the little favor enjoyed by hygiene. On the continent of Europe it is the subject of particular study, and of general attention, and has given rise to many voluminous works of surpassing interest. Periodical publications are exclusively devoted to it; councils and commissions of men of science are established everywhere purposely for its superintendence, and statesmen are deemed incapable, or neglectful of their duty, who do not devote a due proportion of time to its encouragement. The remarkable increase of longevity in England of late years is principally attributable to those improvements in hygiene which, although unsought for, have followed the advance of the inhabitants in comfort, because in a certain degree inseparable from it. But if any one should deem these improvements sufficient, let him read, were it only the index of the "*Annales de l'Hygiene*," and he will see the number of practical applications of science to the welfare of mankind which the public never hear of in England, although it is the fatherland of philanthropy. However, the scourge now approaching will be an imperative monitor in favor of public hygiene, to whose lore it directs us as emphatically as a statue in a cemetery points to the legend of a tomb. Public hygiene requires not only men of science to invent and suggest, but the great mass of the nation to read and co-operate; and we must hope for the day when it will beneficially supplant that study of "Buchan" and the medicine chest, by which so many people drug themselves into disease, and not a few to death.

I hope these observations may be excused, though they may appear too grandiloquent, if considered only as prefatory to the humble suggestions I have to present; and even the latter may be deemed supererogatory if the cholera be considered as neither contagious nor infectious. However, the great majority of men of science are of a different opinion, and of the justice of this opinion we shall but too soon have personal experience. In many places where this fearful traveller has arrived, he has appeared at first in disguise, and has deceived the inhabitants by his equivocal character. Perhaps the peculiar locality, or the unfavorable season, has prevented his epidenical and contagious nature from appearing distinctly. But, after a certain time of incubation, when warmer and

more relaxing winds have begun to prevail, he has rushed forth in all his epidemical fury, and falling upon some class of men of defective vitality, caused either by depravity or poverty, has revealed all his contagious banefulness.

Of all the chemical agents that have been employed to destroy effluvia, none can compete with the chlorides of sodium, lime, and potash. It is not, therefore, surprising, that on the appearance of cholera in Europe, that truly praiseworthy chemist, Labarraque, should have been applied to on the subject of his antiseptic process. Labarraque advises two glasses of water to be daily given, containing from thirty to forty drops of chloride of sodium; the hands and face to be washed with a solution of it; baths, with six or eight ounces of the liquid chloride in each; plates, containing the antiseptic liquor or powder, to be placed at the doors and on the mantel-pieces; and curtains of coarse linen to be hung before the windows, which are to be kept moistened with the chloride. Desirous of promoting this mode of purification, I wish to recommend some precaution in its use, and next some more convenient forms of application.

The chloride which is evolved in the manner above recommended—a destroyer of colors, odors, and effluvia, in its unmixed state is also a destroyer of life. We know how rapidly an animal dies when immersed in a vessel of chlorine gas. We have also the examples of an English physician who died of a disease of the lungs occasioned by his experiments on this gas, and of several chemists who have suffered from the same cause. Although chlorine has been employed in the treatment of some diseases of the lungs, and although when diffused in a small proportion in the air it has not appeared deleterious, not only it cannot but deteriorate in some degree the natural atmosphere of respiration, but when employed in the abundant manner recommended above, we may fairly suppose that it may become highly deleterious, particularly to persons very young, very old, or very weak. We may suppose this to be the case even when no palpable effects are immediately produced, for may it not oppress the powers of life, just as we see in houses either situated in a low or marshy locality, or near the common sewer, the miasmata slowly destroy the inhabitants, perhaps without producing even one single well characterized attack of fever?

To obviate, as far as possible, these objections, we would recommend the following measures:—Whenever it is desired to cleanse a house, or a room, of effluvia or impurities, a large quantity of one of the chlorides should be placed in the most favorable state for the evolution of the gas. Everybody should then withdraw, taking care to remove all the colored articles of furniture, gilt frames, &c. liable to be injured, and the doors and windows be shut as hermetically as possible. Thus the place will be more speedily purified; and doors and windows being thrown wide open after a due lapse of time, no person's health will be injured. When, on account of the presence of the sick in the same room, or in the same house, a constant evolution of gas is required, flat dishes full of the chlorides should be put only where there are the greatest currents of air, placing the dishes in as high a situation as possible; as it has been found that otherwise the gas, which is heavier than the atmosphere, will not mix sufficiently with the air, and only lie in a more concentrated stratum

on the floor. If, from time to time, there is a suspicion of too large a proportion of chlorine existing in the room, let a little liquor ammonia be thrown on the floor, and the rising of a white vapor will reveal the existence of an excess.

When you walk through an infected place, or approach a person laboring under a highly contagious disease, it has been recommended to keep a handkerchief to the mouth, wetted with the disinfecting liquid. This obstructs the speech, whilst the gas inconveniences the lungs, and the protection is liable to be removed in incautious gesticulation. I have had a simple contrivance made to send abroad ; it has the advantage of leaving the speech free, and of being a protection from deleterious emanations, without depriving the lungs of communication with the usual atmosphere. This mask consists of a wire coming from the back of the head to project before the mouth, where it terminates in a ring, furnished with points, to which a sponge dipped in a solution of chloride of sodium may be attached. A thin and short band of brass crosses the wire, and fixes this simple apparatus to the head immoveably. Being elastic, this mask fits the head of every adult, and may be put on and taken off in a second by each person going into the sick room, and causes no inconvenience in any movement of head or body. Besides its use in contagion, its adoption would save the lives of nightmen, who often sink in their disgusting duty.

Salts containing an excess of acid, when mixed in the dry state with chloride of lime, cause the slow evolution of gas by a new combination that arises. Mr. Garden, whom I have consulted on the subject of this letter, and whose chemical acumen often rests on ingenious minutia from more important pursuits, has had the kindness to construct a smelling bottle containing a powder of the above description. Hung by a ribbon round the neck, the heat of the body will favor the evolution of the gas when the stopper is removed. A more effective protector than camphor and other agents carried on the person, this precaution will not alarm the sick friend or the patient. Should the cholera, or any other contagious disease, become very virulent, the medical attendant might wear cotton gloves, with the end of index and next finger of the right hand cut off. The gloved hands being dipped in the disinfecting solution, the pulse, or any other part of the body of the patient, might be examined without fear, the gravity of the fluid making it constantly flow to the apices of the exposed fingers. Nurses may wear oil-skin gloves, and an oil-skin smock-frock, closing hermetically round the throat, wrists, and over the chest.

Besides the chlorides many other "disinfectants" exist, and not a few of these whose source of power must remain concealed. It would appear that most bodies that emit strong odors possess a virtue against contagion. The cholera has had little influence in places where the forests in the neighborhood have spontaneously ignited, and the wood has remained smouldering over the fire. It will be said, perhaps, that here heat and the pyroligneous acid have played important parts ; but manufactories of snuff have been untouched by the cholera raging around, so that smoking has been enjoined in despotic countries where it was previously forbidden. Nor have examples been fewer during epidemics of the plague, where the centre of the town, the vicinity of the most nau-

seous trades, have remained free from the pestilence raging around. Therefore, the general confidence in the fumes of acetic acid, when not carried too far, is not without some reason for its support. To meet the wish of some friends to possess an antiseptic of this description, I have applied the acetic ether to the beautiful philosophical fumigator first imagined in Germany, and now manufactured in this country by Mr. Garden. It is constructed on the knowledge of the singular and well known fact, that a platinum wire once ignited, remains in this state as long as it is held over spirit or ether. Thus a platinum flagree, appended to a glass rod that dips into a scent bottle full of acetic ether, may be made to diffuse it in the form of a very agreeable and exhilarating vapor throughout the room of an invalid.

ULCERATED NÆVUS.

A Case of Ulcerated Nævus, successfully treated by the New Operation.

By MARSHALL HALL, M.D. F.R.S.E. &c. &c.

MR. HEMING, to whom I am already so deeply indebted, has again afforded me an opportunity of observing the effect of puncture in the cure of nævus. The case was doubly interesting from combining ulceration with the ordinary circumstances of that affection.

The tumor was oval, about one inch and a half in length, and three-fourths of an inch in breadth. The central part was undergoing the ulcerative process; around the ulcer the nævus existed in the form of a ring, about one-sixth of an inch in breadth. The edges of the ulcer were ragged, and slightly phagedenic; the surface of the ulcer was *mali moris*, and had bled from time to time. The nævus rose about an eighth or a tenth of an inch above the surface of the skin.

A common broad needle, with cutting edges, was passed through the substance of the nævus, at its base, and under the ulcer, from side to side, in every direction. Several punctures were made, but one would have been sufficient.

In the course of one week the ulcerative process had undergone the most interesting change into the adhesive. No better or more beautiful illustration could be presented of the *Hunterian* doctrines. The ragged edges became smooth and white; the ulcerated surface covered with a film of coagulated lymph. In a few days more the whole ulcer was completely healed.

As a much slower process, the deposit of coagulable lymph encroached on the edges of the remaining ring of nævus, which in the space of one month had become reduced to one-third its original breadth.

At this period it was thought right, in order to accelerate the process of obliteration, to repeat the operation. But on examination, the process of obliteration of the ring of nævus was going on so beautifully that we determined to leave it for daily observation.

The deposit of coagulable lymph, with obliteration of the vessels, gradually encroached upon the ring of nævus, and destroyed its redness and tumor. Each successive week induced an obvious change. The whole process was so distinct, and so peculiar, that, however a shade of

doubt might be cast upon the former case, none could possibly subsist in regard to the nature of the cure in this.

That every kind of vascular nævus, and even some tumors, morbid growths, and ulcers, may be cured by this simple operation, I have no doubt. A mode of obliterating vascular texture, and of changing vascular action, must have numerous applications in surgery. I have thought it, therefore, incumbent upon me once more to draw the attention of the profession to this subject.

MAGNESIA.

On Varieties of Magnesia. By WILLIAM WEST.

IN the Medical Gazette of August 13th, 1831, is a case of poisoning by sulphuric acid, by Martin Sinclair, M.D. Fellow of the Royal College of Surgeons of Edinburgh.

I request your insertion of a few remarks suggested by the following passage in the account, (vide Med. Gazette, August 13th, 1831, page 625, first column.) The passage is as follows :—"By medical writers the carbonate of magnesia is recommended in preference to the carbonate of lime, and is certainly superior by producing a saline aperient by combining with the sulphuric acid. In the present case, however, the carbonate of lime was preferred as having a greater affinity for sulphuric acid, *and because being more easily missible with liquids, it could be administered in greater quantities in a short space of time.*" This latter clause would indicate that the writer was acquainted only with the ordinary carbonate of magnesia of commerce, prepared from the residuary liquor of sea-water, after the extraction of common salt. This is light, mixes imperfectly with water, and occupies a large bulk even when mixed ; it has a taste which, though not very readily discoverable on placing a small quantity on the tongue, is to many disagreeable in a copious draught. This taste appears to depend in some degree on the presence of chlorides and sulphates of magnesia, lime, and soda, left behind in the process of washing the carbonate of magnesia. But since the nauseous flavor of sea-water is chiefly owing to dissolved animal and vegetable matters, and is scarcely perceived in water taken up at a great distance from any shore, I know from experiment so much of the readiness with which soluble, animal, and vegetable substances unite with and adhere to all the common earths, (I waive the question of a real combination,) that I should expect this flavoring matter, too minute and subtle, perhaps, to be at present detected by our chemical tests, to adhere to, and be precipitated with the carbonate of magnesia, rather than to remain dissolved, and be washed away. Certain it is that I do not find on analysis of light carbonate of magnesia so large a portion of muriates or sulphates as fully to account for its disagreeable flavor. But there is another carbonate of magnesia to be met with in trade which I have been in the habit of recommending and supplying, and which is approved, I believe, by all who have tried it : this is known as pure, or heavy carbonate of magnesia.

An ounce measure, lightly filled, weighs about 160 grains ; of the com-

mon sort, the same bulk weighs 48 grains. This heavy carbonate is free from taste ; it is not prepared, in any stage, from sea-water, but from solution of sulphate of magnesia, free from lime, from muriates, and from vegetable bitter. There is another somewhat curious reason of trade for its closer approach to purity. Carbonate of magnesia, when first precipitated, is very white, and of course much mixed with the solution of the alkaline precipitant. Repeated washing, while it carries off the alkaline salt, breaks down that crystalline structure on which the lightness depends, and leaves it heavy. A few, and but a few generations back, carbonate of magnesia was many times its present price, so as to be worth adulterating with carbonate of lime ; and, moreover, that ready and infallible test for chalk in such a mixture, its not dissolving entirely in moderately diluted sulphuric acid, was unknown, or in few hands.

Medical practitioners had then no easy way of judging of its freedom from adulteration with chalk but from its extreme lightness, and to procure it light rather than tasteless was the great desideratum of the laboratory.

Neither the spread of chemical knowledge, nor the example of Dr. Henry's superior preparation, has entirely abolished this prejudice, and hence the manufacturers of common carbonate of magnesia have a strong motive to wash slightly, in order to preserve that lightness which is now a real defect without a countervailing advantage. The manufacturers of pure, heavy carbonate of magnesia, who do not aim at lightness, have not this motive to spare washing, and their preparation is as much distinguished by mixing readily with liquids, and by freedom from taste, as it is by chemical purity. I think no one accustomed to its use could write, "carbonate of lime was preferred because more easily missible with liquids : " it is actually less so.

Two things I wish to guard against ; first, the being supposed to possess any nostrum in magnesia, or to claim the exclusive source of supply for the heavy carbonate, or the calcined magnesia from it, although, in my own connexion amongst apothecaries, I am in the habit of furnishing them largely with this magnesia.

Next, the appearance of imputing any blame to the medical practitioner who treated the case. He seems to have acted with zeal and promptitude, and the same termination might have taken place under any other management ; but I beg leave to point out a circumstance forming a reason for preferring magnesia, or its carbonate, to chalk, which he has not noticed, whether aware of it or not, and which *in other cases* is quite likely to make all the difference between *life* and *death*. It is, that from the comparative insolubility of sulphate of lime, when chalk is added to dilute sulphuric acid, however large the quantity of either, the action of the sulphuric acid on the carbonate, and its saturation with lime, soon stop, from the first portions of sulphate forming a crust round the carbonate, protecting it from the further action of the acid. Even agitation, without actual crushing, is insufficient to bring the whole of the carbonate of lime within the sphere of action of the sulphuric acid. There may exist together, therefore, in the stomach a great mass of carbonate of lime, enveloped and protected by sulphate of lime, and at the same time a large quantity of sulphuric acid, either kept wholly separate from, or

very slowly acting on, the chalk, but exerting the full force of its deadly energies, chemical and physiological, on the structure or functions of the stomach, without check or control. With magnesia this cannot possibly be the case. I should recommend as the best preparation in every such case, if at hand, Henry's calcined magnesia, or the pure calcined magnesia obtained by calcining the carbonate above described, on account of avoiding distressing efforts at eructation in the corroded state of the œsophagus and surrounding parts. Next to these, pure heavy carbonate of magnesia, or even supercarbonate of soda, and chalk only as a temporary substitute, in cases occurring in the country, where chalk might be in the house, and a mixture could be prepared and administered whilst a messenger was on the way to the nearest place where some variety of magnesia could be obtained.

FUNGUS HÆMATODES OF THE BRAIN.

Case of Fungus Hæmatodes of the Brain, with long-continued Constipation of the Bowels. By JAMES LAIDLAW, Esq. Surgeon.

SAMUEL KIDMAN, fifty-eight years of age, by occupation a servant. His wife states that it was about two years ago he first complained of a severe fixed pain in the head, immediately over the left temple, which was attended with dimness of sight : these symptoms were relieved, for the time, by the abstraction of blood, by leeches, and by the application of blisters to the part. The attacks, however, became more frequent and of longer duration ; the severity of the pain being greater, but still confined to the same spot. Some months after his first attack, he was observed one evening, while at tea, to hang down his head, with a stupid, vacant appearance of countenance, and, upon being spoken to, he was found to be nearly insensible : he was totally unconscious of the presence of his friends, and was with some difficulty (by shaking him and pulling him about) made aware of it. After that time, he frequently fell into the same comatose state, sometimes as often as eight or nine times in the course of a day ; and the attacks of headach, giddiness, &c. returned almost daily. Still he had no paralysis, and, with the exception of a slight loss of appetite, was in tolerable general health, and attended to his domestic duties.

Thus he continued up to the beginning of last April, when one evening, while at tea, he was seized with a fit, which continued about twenty minutes, after which he became calm and tranquil as usual. He was not seen by his medical attendant during the continuance of the fit, but it appears, from the description of his friends, to have been of an epileptic rather than an apoplectic character. Leeches, and a blister, were afterwards applied to the head.

After a lapse of nine days, he had another fit of the same nature, which lasted about the same time, and from which he recovered as from the former. A fortnight after the occurrence of the second fit, he was seized with paralysis of the right side of the body, and with total loss of vision and the power of articulating : this occurred while he was shaving himself. The remedies which had been usually employed were again re-

sorted to, but without any benefit ; and he continued in this unhappy condition, suffering little, and often remaining for a day or two in a state of apparent insensibility, until the 11th of July, when he suddenly recovered the power of speech, and from his conversation it was evident his mental powers were unimpaired ; but he was very weak, and was evidently sinking. On the 19th of July, he died. For several weeks previous to his death, he had taken very little nourishment, and for *nearly nine weeks* had had no evacuation from the bowels.

Sectio Cadaveris. Upon opening the head, the membranes on the surface of the brain were found in a perfectly healthy state, with the exception of a slight thickening and opacity of the arachnoid. The right hemisphere of the brain was quite sound and healthy ; but, upon cutting into the left, the middle lobe of it was found converted into a mass of fungoid disease : it was considerably larger than natural, and, by pressing upon the petrous portion of the temporal bone, that bone had become partially absorbed, so as to expose the cavities of the ear. The arachnoid membrane, at the inferior part of the tumor, was so much thickened as to form a sort of sac holding the tumor together. No vestige of the left lateral ventricle could be discovered ; nor was there any appearance indicating which had been the cineritious and which the medullary part of the brain. Upon removing the diseased mass, it seemed to melt away from the touch, and had a good deal the appearance of the tumor formed by a hernia cerebri. The arteries and nerves at the base of the brain were healthy. In the cavity of the abdomen, the large intestines were found choked up by the accumulations of hardened fæces. The liver was larger, and of a darker color than natural ; the gallbladder was very much distended, and, upon cutting into it, was found to contain thirty-three gallstones, of the size of peas, and about three ounces of bile. The other viscera were healthy.

One of the most remarkable circumstances in this case was the extreme torpidity of the bowels, so that, for nearly nine weeks previous to his death, no evacuation could be procured. This must have arisen from their impaired nervous sensibility, in consequence of the disease of the brain, as there was no morbid appearance of the bowels themselves. There are two cases published by Dr. Baillie, in which no evacuation could be procured from the bowels, in the one for a period of fifteen weeks, and in the other twenty days ; but the obstruction in both these cases was mechanically produced by stricture in the rectum.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, FEBRUARY 15, 1832.

EFFECTS OF BREATHING IMPURE AIR.

It is a highly interesting question, and one which has scarcely received the attention it merits, what is the effect on the health of breathing for a long period an atmosphere vitiated by human respiration. The

effect of actual confinement within a limited portion of air, in inducing rapidly fatal consequences, is sufficiently familiar. The symptoms, under these circumstances, plainly refer themselves to the organs which are principally concerned in conducting the process of respiration. The embarrassment and distress are immediately referred to the lungs; it is their functions which are impeded, and it is the gradual interruption of these, which induces the fatal effect. But the case is very different when the privation of fresh air is partial only, and arises from what is usually regarded as imperfect ventilation. In rooms which are ill supplied with fresh air, as for instance in working rooms, where numbers are collected, no immediate difficulty is ordinarily experienced which can be referred to the lungs. On first entering the room, perhaps some slight dyspnœa is felt; but this soon disappears, and the individual directly becomes so accustomed to the new medium, as scarcely to be aware that he is not breathing the purest atmosphere. The contrast is indeed very striking, when from such a medium he makes a transition to the purer air without; and the grateful sensation he then experiences, reminds him of the contaminated region from which he has emerged. In passing from a crowded assembly, as a public meeting, into the open air, and the reverse, the effect of this contrast cannot be mistaken. Even in exchanging the air of the country for that of the town the change is at once obvious and striking, and although in this case human respiration is not the only source of contamination, the influence from this cause is perfectly manifest. Yet in all these cases the difference between actually breathing the pure and the impure air, is by no means so obvious or apparent; and so far as the action of the lungs is concerned, the process seems to go on as well in the one as in the other. It becomes then a question of some interest, what are the effects, if any, of a contaminated atmosphere when breathed for a long period; and whether the same force of habit which reconciles us to the sensation, also fortifies the system against its influence, and renders it altogether innoxious.

This question can in some measure be resolved *a priori*, by considering the changes which the blood undergoes in its sensible properties from the contact of air, and likewise the purposes which it is destined to answer in the animal economy. As an obvious effect of atmospheric oxygen is to change the dark color of venous blood to a florid hue, it were natural to anticipate that where this principle is partially and imperfectly supplied, the color of the blood, wherever exposed to view, would be less bright than where it is abundantly furnished. Secondly, as it is the property of arterial blood to stimulate the heart and arteries, it might be supposed that one effect of impure air would be to produce a feeble action of the arterial system. Thirdly, as it is the office of the blood to supply nutrition to the system, it might well be expected that, if the necessary changes in its chemical constitution are not duly effected, the secretions

must deteriorate in character, digestion be ill performed, the peristaltic action become sluggish, the growth of the various parts be checked, and a general debility of the system be induced. Now we do, in fact, find differences nearly corresponding to these between individuals differently situated in regard to supplies of fresh air. In comparing, for instance, the inhabitants of the town to those of the country, it is a common remark that the complexions of the former are less ruddy, thus indicating a want of florid blood in the capillaries; their digestion less powerful, manifesting that the system is not fully and rapidly nourished; and the pulse more feeble, showing a want of due vigor in the action of the heart. The effect of imperfect ventilation becomes far more striking when we remark the aspect of those, who, in the pursuit of their daily occupations, are enclosed in crowded and ill ventilated apartments. We notice at once their pale and dingy complexions, and the want of a due action on the surface; we find the muscular substance to be soft and flabby; the pulse feeble; the appetite impaired, the powers of digestion limited. Yet under all these circumstances, no actual disease appears to be induced, and individuals sometimes attain advanced age, having passed two-thirds of life in so foul and corrupt an atmosphere that to one entering it from abroad it seems absolutely intolerable. Even the diseases which occur in this class of persons are seldom of that violent and acute character which is seen in those whose circulation is active and vigorous; and those who might be judged from their aspect to be the victims of a slow marasmus, will yet profess to have enjoyed through life uninterrupted health. They have, in fact, no particular disease, and experience no sensation of suffering; but the body is not well nourished, the motions are slow, and the whole appearance torpid and sluggish.

These observations will perhaps seem vague; but their vagueness arises less from any want of reality in the objects described, than from the difficulty of describing by means of negative qualities. That there is a reality in the gradual influence of confined air, we are fully satisfied; and our observations on this subject are confirmed by those of others who have directed their attention to this subject. In a short but highly interesting memoir on the subject of miners, contained in a late number of the *Edinburgh Journal*, is described a state of constitution not differing except in degree from that just alluded to. The author commences by remarking the infrequency of acute disease of the lungs among this class of persons. He observes that miners are rather less liable to inflammatory complaints than other classes in the community, and that they have no particular tendency to morbid affections of the chest. It appears also that they experience no particular annoyance even when at work in mines where the deficiency of fresh air is very considerable; and that they attain in many instances to a considerable age. On the other hand, we are told that they complain of lassitude, debility, and drowsiness, and that they all become paler in complexion. The author's theory is, that while an excess of oxygen in the

atmosphere is calculated to prove a stimulus and to excite inflammatory action, the deficiency of this principle will have the opposite effect; and while it depresses all the powers of the system, will prevent the occurrence of inflammatory disease. That with such a theory to maintain, he should have been disposed to swell the list of immunities enjoyed by those exposed to this antiphlogistic influence is natural enough; and it appears from other accounts that miners are not so much exempted from acute or chronic pneumonia as those who work in a purer atmosphere. The subject, however, of the gradual influence of impure air is in every view highly interesting; and we hope that others enjoying extensive opportunities of observation will be led to pursue it.

FACTS RESPECTING CHOLERA.

A VERY interesting discussion on the contagiousness of the Cholera recently took place in the Westminster Medical Society, among the members of which are many of the most eminent medical men in England. It lasted four evenings, and a minute account of it, on each evening, is given in the Medical Journals of London. At the last meeting, among the members who took part in the debate were Drs. James Johnson, George Gregory, and A. T. Thompson; Dr. Macleod, the former, and Dr. North the present editor of the Medical and Physical Journal. It appeared, at the termination of the discussion, that every member but one, was of opinion that the disease is contagious, in a greater or less degree.

Dr. Gregory, whose remarks are quite fully reported, treated the subject with clearness and ability. He dwelt upon and illustrated very amply, three facts as particularly illustrating the mode in which the disease is propagated; these were,

“*First*, its mode of travelling from country to country, and from town to town, invariably appearing first on the frontier next to an infected district, or if on an island, always first showing itself in a sea-port—in short, never being met with except where communication had been held with places in which it already prevailed. *Secondly*, the manner in which it frequently spread through the members of a family, or communicated itself to those who visited the sick, though residing in a different and distant locality. *Thirdly*, the immunity which had, in numerous well-authenticated instances, attended a rigid isolation, as at Peterhoff and Zarcozelo, where there were from 8 to 10,000 persons who remained unaffected, while it raged around them.”

Dr. G. alluded to the circumstance, as worthy of note, that in all the Indian reports there is stated to have been one spot in every large town, which the disease either did not visit at all, or not until almost every other place had been decimated by it—that spot was the jail; and its immunity is attributed to the slight intercourse of its inmates with other inhabitants.—Another circumstance that produced a strong impression on his mind was, the particular course of the disease in Russia:—“the manner in which it

travelled *up* the Wolga to the *north*, and then, crossing over to the Don near its source, pursuing a course diametrically opposite, namely, *down* that river to the *south*; thus travelling in two nearly parallel lines in contrary directions—a phenomenon perfectly intelligible if the plain straight-forward doctrine of its being carried by man were admitted, but wholly incomprehensible on any other.”

Allusion was made to the fact that most of the English Physicians who had been zealous advocates for the non-contagiousness of the disease, have, on nearer examination of its progress, been convinced of its contagious character. Dr. Russell, *e. g.* went to Russia a non-contagionist, but has been satisfied that he was in error; Dr. Lowrie, who had seen the disease in India without suspecting it contagious, is convinced that it is so at present. Mr. Orton, author of a work on cholera, and a staunch non-contagionist, now comes forward and says that the arguments against contagion are “as dust in the balance”—such are his words—when placed against those that are now opposed to them. Dr. Johnson, of the Medico-Chirurgical, is now quite satisfied that the disease is contagious *under certain circumstances*, i. e. when a predisposition to it exists in the person exposed,—and what more can be said of the smallpox itself? Indeed, says Dr. G. “one would think it scarcely possible that two opinions *could* exist with regard to a question where the *Medical Gazette* and the *Lancet* embraced the same side, and were seen fighting under the same banner.”

Referring to the exceedingly futile attempt so often made to prove the non-contagiousness of this disease, from the number of instances in which persons have been exposed to it, and yet escaped, Dr. Gregory remarks that “Calculations of the number who escaped might lead us to form some estimate of the proportion of mankind who are susceptible of the disease; but negative evidence can never, by any increase, disprove the positive results opposed to it. Yet this was the constant argument of the non-contagionists. Like the man tried at the Old Bailey for sheep-stealing — ‘Ah! my Lord,’ said he, ‘if I had known that you would have condemned me because two men swore they saw me steal the sheep, I would have brought twenty to swear they did not see me.’” — The fallacy of this argument, however, is more strongly illustrated by the case supposed in our last, of the person who should argue the innocuousness of musquetry, because so many escaped harm who were at the memorable battle of Waterloo.

Touching the contagiousness of this disease, it cannot but have been remarked that however zealously opposed by Physicians whilst but poorly informed of the details of its progress, it has been almost uniformly allowed, by the same persons, after having had more ample opportunities of noticing it. In addition to the persons before mentioned, we find its contagiousness expressly affirmed by the most distinguished of those who have been eye witnesses of its ravages; among these we would mention Drs. Scott and Stuart, the principal members of the Medical Board at

Bombay—the Physicians of two divisions of the army at Bengal—the Medical Board of Calcutta—Dr. Kennedy, author of a valuable treatise on the cholera—the Bombay Report—the Medical Board of Russia—the Central Sanatary Commission in France, and the Superior Council—the Persian and Turkish governments—the four Austrian physicians who were sent to Russia to observe the disease—Dr. Walker as well as Drs. Barry and Russell—Drs. Makartienne, Martinengo, Meunier, Angelin, and Salinas, who have witnessed the cholera in different countries—Sir William Crichton and Dr. Loder, physicians to Nicholas—the late Russian General Diebitsch, and the Polish commander Skrznecki. Besides these, we may mention the Emperor Nicholas; the British Ambassador at the court of St. Petersburg; and the French consuls Lesseps, Guys, Reynaud and Gamba.

The important subject of the appropriate *treatment* of the cholera is pursued in England, as we expected it would be, with unparalleled zeal and enterprise. The great question seems to be, whether there is yet any untried expedient which might possibly be useful in mitigating the violence of the disease;—the most judicious and practical men in the profession are assiduously occupied in endeavors to find out some more specific remedy than any that has been hitherto tried. The medical Journals teem with communications on the subject, and contain almost nothing on any other than this all-absorbing topic. Among the propositions already made, we would mention the following.

1. *Bark*.—It is supposed by many who have seen the cholera that it resembles, in many particulars, the tertian ague. Indeed Dr. Barry, at a public meeting held at Newcastle, stated that “there was more analogy between it (malignant cholera) and the worst forms of the tertian ague, or intermittent fever, than between it and the ordinary cholera of this country (England).” Hence it is proposed to use bark in doses of ʒiij. every second hour, combined perhaps with opium or landanum. The bark in substance or tincture is recommended, in preference to the salts of quinine, as, besides a certain quantity of quinine and cinchonine, bark contains other principles of an astringent nature, which would aid in arresting the evacuations attendant on this disease.

2. *Galvanism*.—As the poison of cholera appears to act as a powerful sedative on the nervous system, and produce a recession of blood from the surface, numerous writers propose galvanism combined with a hot air bath, and local stimulants, as a probable mode of arresting its symptoms.

3. *Injection* into the blood of oxygenating salts. The nitrate and chlorate of potassa, in doses of from 10 to 30 grs. injected into the blood, have been supposed capable of oxygenating the blood, and so removing the most formidable symptom of cholera. This proposition has been made by Dr. O'Shaughnessy, of London, who had gone to Sunderland, at the last dates,

for the purpose of prosecuting his researches, and testing his theory by experiment. The result will be communicated to the reader in due time.

4. *Inhalation* of oxygenated gases.

5. *Transfusion*.—This remedy has been proposed in England; but it appears that it has been tried and found unavailing, at Berlin. The account of these experiments is so interesting that we shall give it entire next week.

6. *Cautery*.—At a late meeting of the Westminster Society, Dr. Barry remarked that the phlogosed state of the spinal marrow, noticed in examining the bodies of those who had died of cholera, led Dr. Lange, of Cronstadt, to try the use of the actual cautery to the spine, opposite the part where the inflamed or softened appearances presented themselves. This was done in fourteen cases, twelve of which recovered; and this too at the commencement of the epidemic, the very time at which experience had shown it was violent and intractable. In several of these cases the patients were so much satisfied of the relief afforded, that they begged for the repetition of the operation; but such were the prejudices of the people against the medical men—such their persuasion that the disease was produced by poison, and that this method was a kind of torture by burning, that it was found necessary to discontinue it.

Dr. Wilkinson has stated, in the last number of the London Journal, that he understands it to have been uniformly the case, that, in those countries where the cholera has prevailed, it has been preceded by an influenza, similar to that which recently prevailed in England. This fact will disappoint the expectations of those who had hoped that our recent epidemic might be a *substitute* for the great plague of the age. Dr. W. also remarks that he has been informed by highly respectable practitioners, that those who have previously suffered a severe attack of influenza are more apt to be affected by the cholera.

A Sunderland Physician has announced to the British Government that he has discovered a specific for cholera, and will make it known on receiving a suitable compensation! The reply of the government was such as must suggest itself to every reader. It is not possible that any one could see his fellow creatures dying around him, and thus withhold the means of preserving them till he could receive an adequate compensation from government. The proposition, therefore, must be a base attempt on the part of this Physician to impose upon the rulers and defraud the treasury of his country.

A Medical Exchange is held daily in Berlin for the purpose of mutual communications among the Physicians, respecting the cases of cholera, the effects of different or new modes of treatment, &c. &c.

The mortality of cholera on the continent of Europe has been very different in different places. According to an account given in the Russian State Gazette, the number cut off by the disease out of every 1000 inhabitants, during the first 48 days of its visit, has been—at Lemberg, 51; Mittau, 34; Riga, 31; Posen, $16\frac{1}{2}$; Petersburg, $12\frac{1}{2}$; Konigsburgh, $11\frac{1}{2}$; Elbing, $9\frac{1}{2}$; Dantzic, $8\frac{1}{2}$; Stettin, $5\frac{1}{2}$; Berlin, 4.

At a stated meeting of the Counsellors of the Massachusetts Medical Society, held Feb. 1st, 1832, the following Preamble and Resolutions were adopted :—

Whereas, the disease called *Epidemic Spasmodic Cholera*, has prevailed in various parts of Europe, and may hereafter appear on this side of the Atlantic Ocean; so that it is expedient that the Physicians of this country should be prepared to meet this disease: Therefore,

Resolved, 1st. That a Committee of *seven* be chosen by the Counsellors of this Society, whose duty it shall be to investigate the history of this disease, and especially to ascertain the best mode of treating, and carefully and without prejudice consider whether it be or be not a contagious disease.

2d. That the sum of thirty dollars be appropriated to defray any such expenses for the purchase of books, as may be thought necessary by the Committee.

3d. That this Committee be authorized to make public the result of their deliberations at the expense of the Society, at any period they may think most conducive to the public good.

The following gentlemen were chosen on this Committee, viz. Drs. James Jackson, John C. Warren, and George Hayward, of Boston, Alfred Perry, of Stockbridge, John Green, of Worcester, Rufus Wyman, of Charlestown, and Abel L. Peirson, of Salem.

Legalization of Anatomical Dissection.—The atrocious crimes recently committed in England, and which have produced there an excitement scarcely less than that occasioned by the cholera or the reform bill, have drawn the attention of the Government to the necessity of providing by law for the supply of proper subjects for dissection; and a bill has been introduced into Parliament for this purpose by Mr. Warburton. It will hardly, however, accomplish the object for which it is or ought to be designed; for it provides that no body shall be given for dissection without the consent of the person when alive, or of his nearest relative after death. Strange infatuation!

Spontaneous Combustion.—On the 23d of March, 1830, when at the island of Rótuma, Southern Pacific Ocean, I had requested a native to bring me some of the sweet scented male flowers of the Pauhuf (*Pandanus odorotissimus*); they were accordingly brought on board, enveloped in native cloth, and packed in baskets formed of the cocoa-nut frond; and having been brought off to the ship during a heavy sea, were wetted by the spray. I laid them aside unopened in my cabin. Some hours after, looking at them I observed a steam arising from the basket; and, on taking them out, found that a spontaneous combustion had taken place among those situated underneath, most of which had become completely blackened, and the heat which proceeded from them was very great. Had they been incautiously stowed in a ship's hold, the consequences might have been very serious.—*Mr. G. Bennett's MS. Journal*, 1830.

Luminosity of Coral Insects.—On the 20th of March, 1830, when coming off to the ship at Thor Bay, island of Rótuma, Southern Pacific Ocean, some hours after dark, a long reef of coral extended some distance from the beach, some part of which was dry at low water, and at other places the water was very shallow. The canoe in which I was going off grazed with some degree of violence on the coral nearly at the termination of the reef, when the surface of the water immediately became brilliantly phosphores-

cent, and remained so for a brief period. The water at other places I did not observe, this night, displaying any phosphorescent light. Can we infer from this that the coral zoophytes have luminous properties?—*Ibid.*

Effects of Cold Weather.—According to the Natches papers, more deaths had occurred in that place, in one week, in consequence of the long continuance of cold weather, than in any one week since the yellow fever raged there in 1825.

The offer of 25,000 roubles, by the Russian government, for a cure of cholera, has already produced 125 essays, pointing out infallible remedies. Unluckily almost all of these have been discovered in the closet of the writers, and never tried in the sick chamber.—*Gazette Médicale.*

In consequence of a case of poisoning, at Paris, having, in the first instance, been declared to be cholera, the Prefect has addressed a circular letter to the Mayors of the provinces, directing them to be on their guard against similar mistake or imposition.—*Ibid.*

New Professorship.—At a late meeting of the Corporation of Harvard University, John Ware, M.D. of this city, was chosen Adjunct Professor of the Theory and Practice of Physic to that institution. In the wisdom of this choice but one voice will exist among the Faculty. Dr. W. will bring to the place a philosophical mind richly endowed, and a happy faculty of communicating to others the result of his investigations.

The prospect of a speedy reduction if not an entire abolition of postage on *periodicals*, will relieve distant readers of a part of the expense attending the subscription to this Journal.

Whole number of deaths in Boston for the week ending February 3, 24. Males, 8—Females, 14—Stillborn, 2.

Of dropsy on the brain, 2—scarlet fever, 3—dropsy, 1—consumption, 4—apoplexy, 2—abscess, 1—quinsy, 1—convulsions, 1—lethargy, 1—lung fever, 1—old age, 1—croup, 1—throat distemper, 1—influenza, 1—unknown, 3.

Whole number of deaths in Boston for the week ending February 10, 28. Males, 17—Females, 11.

Of palsy, 1—lung fever, 4—consumption, 4—bowel complaint, 1—throat distemper, 4—canker, 1—hooping cough, 2—scarlet fever, 2—liver complaint, 1—influenza, 1—drowned, 1—dropsy, 1—debility, 1—sudden, 1—dysentery, 2—unknown, 1.

MECKEL'S ANATOMY, 1st VOL.

CARTER & HENDEE have this day received, Manual of General, Descriptive, and Pathological Anatomy. By J. F. Meckel, Professor of Anatomy at Halle, &c. &c. Translated from the German into French, with Additions and Notes, by A. J. L. Jourdain, Member of the Royal Academy of Medicine at Paris, &c. &c., and G. Breschet, Adjunct Professor of Anatomy at the School of Medicine, &c. &c. Translated from the French, with Notes, by A. Sidney Doane, A.M., M.D. Feb. 15.

GREY'S SUPPLEMENT.

ANY one having Grey's Supplement to the Pharmacopœias, London edition of 1828, belonging to the subscribers, will confer a favor by returning it. JARVIS & PEIRSON. Feb. 15.

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CHRONIC DISEASE OF THE STOMACH.

On Chronic Disease of the Stomach, with Two Cases and the Appearances on Dissection. By THOMAS SANDWITH, Esq. M.R.C.S.L., Beverley.

UNDER the term *Cancer* have been included many dissimilar diseases of the stomach, as Chronic Inflammation of the Pylorus, and Fungus Hæmatodes. Baillie makes no distinction between the carcinomatous and fungoid diseases of this part; indeed his description of Cancer of the Pylorus is a blending of the characters common to both. Afterwards, however, on the authority of Portal (*Anat. Med.* tom. 5, p. 205), he admits the existence of Fungus as a distinct species; observing at the same time he himself had never seen it in this situation. When we consider that fungus hæmatodes of the pylorus is unattended with pain, and that the pain of cancer is severe and lancinating, it seems wonderful that these diseases should have ever been confounded.

Dr. Pemberton manifests a similar confusion of ideas, and mentions a case to show that "a large scirrhus of the stomach near the pylorus with an open cancer on a part of it," existed for a length of time without a symptom during life to mark its nature. He also refers to a case of the same kind in De Haen (vol. iv. p. 162). The description of cancer in the stomach in the excellent Manual of Martinet, is in truth a description of fungus hæmatodes. On the subject indeed of cancer altogether there is a singular want of precision in the opinions of many of the French pathologists. Breschet and Ferrus confound with cancer, the fungus hæmatodes of Wardrop, the medullary sarcoma of Abernethy, and the encephaloid tumors of Laennec.

We are indebted to Andral for the first attempt to dissipate the obscurity that has hitherto prevailed. In his recent laborious work on the diseases of the abdomen, several cases of fungus hæmatodes are related, in the greater number of which pain, denoting disease of the stomach, was altogether absent, but the vomiting and emaciation and exsanguine appearance of the patient, together with the occasional detection of a hardness in the situation of the smaller extremity of the stomach, rendered it difficult not to perceive the nature of the disease. This author is of opinion, that no symptoms exist, which can in the living body point out the diagnosis between this disease and chronic inflammation of the stomach.

In the latter opinion he is borne out by the experience of Boisseau. Our own countryman, Dr. Seymour, has published a valuable communication on abdominal tumors in the *Medico-Chir. Transactions*, in which the distinction between cancer and fungus hæmatodes of the stomach is clearly established. The two following cases appear to confirm the views of these eminent pathologists.

1. *Case of Chronic Gastritis with Ulceration of the Pylorus.*

For a period of more than three years, Mr. S. æt. 25, was more or less an invalid. His disorder commenced in town, and was originally confined to the stomach; the symptoms being, according to his description, those of chronic *Gastritis mucosa*. He said he suffered from a burning heat in the epigastrium, but no pain; sour and acrid eructations, flatulence, loss of appetite, frequent nausea, and occasional vomiting of a watery fluid. The disease was considered to be dyspeptic, or, in vulgar language, "a bilious affection;" and, agreeably with this notion, the blue-pill, tonic medicines, and a diet consisting of animal food, &c. were recommended; a method of treatment now happily yielding to the influence of a better pathology.

When he put himself under my care, more than a year had elapsed, but he complained of the same distressing symptoms. Still there was no pain even on pressure. He received much benefit from milk diet, milk and lime water, a small bleeding or two, the external use of Jenner's ointment, and medicines to keep up a regular action of the bowels; and returned to town in somewhat better health. His complaint, however, recurred in an aggravated form, and after three months he again visited the country.

His appearance was now sadly changed. There was great emaciation, and the complexion was pale and exsanguine. The food was regularly rejected some hours after eating, along with a considerable quantity of mucus; and opening medicines in all forms, and of the most active description, failed to open the bowels. No remedies availed to arrest the progress of the disease; emaciation and debility went on increasing; the ankles became œdematous, and the abdomen so much enlarged, that but for the activity of the kidneys, his disease might have been mistaken for ascites. Now and then there were slight paroxysms of fever. The bowels continued obstinately costive, and were only slightly relieved by the daily use of injections. Meanwhile he made no complaint of pain, and his appetite was good. He ate heartily indeed, and knowing that whatever was the quality of his food, it would in due time be certainly rejected, he indulged in the most incongruous articles of diet. For some months before his death he was unable to leave his bed, and vomited frequently large quantities of a coffee-colored fluid.

Autopsy.—On opening the abdomen, the entire cavity seemed to be occupied by the stomach, which was dilated into an enormous sac, capable of holding more than a gallon. It was found to contain about three quarts of a coffee-colored fluid. Its parietes were thin, except near the pylorus, which was thickened, somewhat indurated, and from ulceration uneven. This portion of the stomach had a peculiar brown appearance, and the vessels were seen loaded with a coffee-colored matter, which oozed out, and could be squeezed from their ulcerated extremities.

The intestines were greatly contracted, and the calibre of the colon was so small, that the contents of its sacculi resembled small pellets of sheep's dung.

2. Case of *Fungus Hæmatodes* of the *Pylorus*.

The history of this case embraces a period of more than two years and a half. The complaint began in September, 1827, when, in consequence of continued grief and anxiety of mind, Mrs. H., æt. 62, was attacked with a diarrhœa, which assumed a chronic form. My assistance was not required until it had continued several weeks. The discharges were thin and watery, and unattended with pain or fever; and except the weakness attendant on such a disorder, and considerable emaciation, there was no other symptom of disease. Although peculiarly obstinate, it eventually yielded to remedies.

In the spring of the year ensuing (March, 1828), the diarrhœa returned with catarrhal symptoms. It was again relieved, and although she remained in a state of considerable emaciation, my patient had no serious disease until April, 1829. She then complained of disorder of the stomach, of which the symptoms were frequent vomiting of a watery fluid, black water as she called it (pyrosis), a sense of sinking and weakness of the stomach, general debility and emaciation; but no pain or fever. The ankles were slightly œdematous, but there was no diminution of the secretion of the kidneys. It is unnecessary to detail the method of treatment—suffice it to say, it had the desired effect of relieving the symptoms.

During the summer months her health was tolerable, so far so at least as not to require medical assistance; but in the autumn (Sept. 1829), the disorder of the stomach returned in a more aggravated form. She now regularly vomited some hours after eating; and the matter ejected, besides the ingesta, consisted of a material resembling liquid mud. The bowels were not very irregular, but the fæces were slate-colored. She still made no complaint of pain in the region of the stomach, but deep pressure occasioned some uneasiness; and there was an indistinct feeling of hardness a little above the navel, towards the right side, apparently in the situation of the pylorus; indeed there could be no doubt of the existence of an organic disease of the pyloric portion of the stomach. The emaciation was extreme, the skin loose and shriveled, of a dirty yellowish color; and the complexion sallow and transparent. The pulse was feeble, but slow and regular, tongue clean, and there was no fever. As no rational expectation of her recovery could now be entertained, the treatment was simply palliative; consisting for the most part of milk diet, and anti-emetic remedies.

About the middle of October, she was unable from weakness to leave her bed, and in this stage of the disease was seen by my friend, Dr. F. Leighton. It was agreed in consultation, that she should be kept in a recumbent posture; the diet to consist of milk alone, or with the addition of jelly prepared from the *Lichen Islandicus*, and the bowels to be opened by injections. A blister was applied to the epigastrium, and five drops of the nitric acid were ordered to be given every four hours. For about three weeks little or no advantage was gained, and her dissolution was

daily expected. At the end of this time, however, the vomiting ceased almost entirely, and the stools became natural. She took the milk and jelly with appetite, and only complained of the privation of more substantial food. Her countenance became cheerful, but still the emaciation went on increasing. Injections of beef tea were now recommended. In this condition she continued the next three months, having about once a week or fortnight an attack of vomiting, or a return of diarrhœa preceded by a rigor and a paroxysm of fever. Once also one of the legs became œdematous, the swelling being preceded by pain and increased heat. Latterly she was able to leave her bed some hours every day, and indulged in a somewhat greater latitude in articles of diet; until at length a colliquative diarrhœa of not unnaturally colored, but very offensive, discharges came on, and a week afterwards she expired.

Autopsy.—The cadaver was emaciated to the utmost degree. A tumor about the size of an orange was seen through the integuments, above the navel, a little to the right side. On opening the abdomen the stomach was found greatly distended, and contained a considerable quantity of a coffee-colored fluid. The larger extremity was thin as paper, denuded in places of the mucous lining, the remainder of which was white and softened, and the whole so tender, that it gave way to the slightest handling. The pyloric portion was converted into a solid tumor, pale and hard. The submucous coat of the stomach, in this situation, was found on division to be thickened to the depth of from half an inch to an inch, and of great hardness; white bands running across. Pale reddish fungi covered the mucous surface, corresponding in appearance exactly to those depicted in Dr. Seymour's plate. When cut into, these fungi consisted of a soft whitish matter. The liver and other viscera appeared pale, but not otherwise diseased.

APOPLEXY OF THE SPINAL CORD.

Apoplexy of the Spinal Cord: from Reports of Medical Cases. By
DR. BRIGHT.

MR. BENJAMIN B., aged 48, was engaged during the greater part of his life in the merchant service at sea, performed many voyages to India and China, and in general enjoyed good health. In 1812 he received a violent chill at St. Helena, which brought on a rheumatism, with which he labored for many years. The muscles of the trunk both before and behind were occasionally affected; his bowels were habitually costive, and the digestive organs generally out of order. This was his last voyage. He engaged in commercial business at home, but, not proving successful, his health suffered through care and anxiety; he fell into a declining state, attended with nervousness, increased flow of urine, and some degree of emaciation. On the night of April 20, 1826, he sustained a slight paralytic attack, by which his mind and speech were a little disordered, and all the muscles on the left side were weakened. From the effects of this attack he never recovered; neither his articulation, however, nor his faculties, were sensibly impaired; and, from being at first hemiplegic, he gradually became paraplegic, in which state he died

April 16, 1827. During the two months preceding his death, the palsy having decidedly seized the trunk, the use of the catheter became necessary. There was also slouching about the nates, of the fetor from which his olfactory nerves were sufficiently acute to render him conscious. The act of death may be said to have occupied thirty-six hours; the powers of evacuation, speech, deglutition, the mental faculties, and the remaining muscular force, were successively extinguished. The respiratory function ceased the last. "As he sat up in the bed supported by pillows, the head and body vacillated from side to side; the breathing became laborious, and sometimes moaning and stertorous; the eyes were half closed, and had a wild and vacant expression; but as long as the power of communication continued, he signified that he was free from pain and distress."

Upon examining the head and spine, the following appearances were observed. The brain was sound, with the exception of a little serous fluid between the membranes, and some congestion in the veins of the pia mater. The disease had been apparently seated in the coverings of the spinal cord, which exhibited evident marks of inflammatory action, although the cord itself presented no visible derangement. Serous fluid, in considerable quantity, was found between its membranes, and the arteries of the pia mater were much injected. "Within the upper dorsal vertebræ, on the left side, rather more than an inch in length, in the direction of the spinal axis, and about half an inch in a transverse direction, was an apoplectic cell, containing the red and broken remains of a coagulum; and lower down in the spinal canal, the internal ligament was to some extent deeply marked by ecchymosis, as if in progress towards the formation of another similar effusion. The extravasation appeared to have been wholly external to the cord, which was in consequence compressed; but as far as could be perceived, it was neither disorganized nor inflamed. The coagulum seemed to be subjacent to the pia mater, and to be enclosed in a false or adventitious membrane."

Here, then, was clearly hemiplegia of the left side, arising from an apoplectic effusion on the same side of the spinal cord; although the right side of the brain, it should be observed, did certainly exhibit an undue degree of vascularity. This, however, agreed perfectly with the symptoms, and more especially with the fact that the complaint was purely paralytic, and eventually assumed the form of paraplegia, while the senses and the mental faculties were not obviously impaired.

It is justly observed by Dr. Stroud, that we may derive several useful and interesting conclusions from the history of the foregoing case. For example, it would appear that conditions purely nervous, and originating in long-continued mental disturbance, may, according to predisposition, induce an inflammatory or hemorrhagic state of the membranes investing the brain, or the spinal cord; and that this state, operating through the medium of the nerves, may exert an extensive influence both on the solids and on the fluids of the body. Under the exacerbations which repeatedly occurred in this case, the intensity of the secondary irritation progressively advanced, from itching and smarting to severe rheumatic pain, chiefly between the shoulders and on the affected side. The blood became buffy; the bile dark-colored and concentrated; the alimentary

canal abounded with acidity. Without any apparent disorder of the stomach and bowels, the tongue used to become red, or foul, or parched; and all this obviously from the state of the nervous system. The excitement which proceeded from the left side of the spinal cord to the right side of the brain, furnishes an interesting illustration of an occurrence which usually takes place in the opposite order of succession, and affords additional evidence that the corresponding halves of the central mass of the nervous system decussate in the medulla oblongata.

CANCER OF THE BLADDER.

Cancer of the Bladder—Puzzling Case.

A MAN named Rossignot, aged 65 years, entered the hospital on the 13th Jan. 1831, saying he had been afflicted with rheumatism for a long time. His complexion was delicate, his limbs slender, and his features shrunk—in fact, he was greatly emaciated. He complained of a burning heat internally, and had much thirst, with constipation of the bowels, but little or no tenderness on pressure of the abdomen. He had severe pains in the loins, and indeed in both of the lower extremities. He had incontinence of urine, and his body and clothes smelt strongly of that excretion. This incontinence had existed for eighteen months, with some periods of retention of the same, the urine being very turbid, and sometimes mixed with blood. M. Biett conceived that there was some organic disease of the urinary organs. The pains in his loins increased rather than diminished, and on the night of the 16th of the same month, he was seized with hæmaturia; and the next day, in the midst of interrogations, he suddenly expired. The reporter, M. Berard, here asks what medical man, after observing the above symptoms, would hesitate to pronounce the disease NEPHRITIS CALCULOSA? This opinion was that formed by M. Biett, and participated in by M. Berard; yet they were both mistaken.

On dissection, the kidneys were free from disease. The ureters were as large as the jejunum. The bladder filled a great part of the inferior pelvis, and was knotty on its surface, its cavity almost obliterated, and its parietes thickened enormously by a malignant fungoid disease. A cauliflower excrescence, of a cancerous character, projected from the bladder towards the inguinal ring; and another penetrated through the great ischiatic notch, compressing and blending with the great sciatic nerve. A third excrescence ascended from the fundus of the bladder towards the lumbar vertebræ, compressing the ureters, and obstructing the discharge of urine into the bladder. These post-mortem facts explained all the vital phenomena, though it would not have been easy to predicate the real nature of the malady during life.—*Revue Medicale.*

ON THE USE OF TOBACCO IN GOUT.

Observations on the Use of Tobacco as a Local Application in Gout, and other Cases of Constitutional Inflammation. By JOHN VETCH, M.D., Physician to the Charter-house.

UNDER other circumstances it had been my intention to give to the public a series of detailed cases to establish the beneficial effects of tobacco as

a local application, and one capable of alleviating in a great degree, and of sometimes altogether arresting, various forms of specific inflammation, more particularly gout and rheumatic inflammation attacking synovial membranes. Besides the power which this vegetable possesses in allaying the pain and abating the inflammation of gout, it assists the parts most materially in recovering their tone and strength.

The sensible effects of tobacco upon the skin and cuticle are readily perceived, by immersing, for a short time, the fingers in an infusion, or in a watery solution of the extract.

The infusion forms a valuable application in all cases of erysipelatous inflammation, and the only precaution to be attended to, is not to apply it to any part contiguous to the stomach, unless the production of nausea be at the same time desirable.

I was led to appreciate the valuable sedative and astringent power of tobacco in the first instance by the benefit I derived from it in cases of the last mentioned class, having many years ago instituted an extensive trial of all the known narcotics, with the expectation of deriving additional aid in the treatment of purulent ophthalmia.

The good and the powerful effects which I obtained from the tobacco, fully compensated for the inefficiency of all the other local applications I then tried ; its effects were notorious to all who saw it employed, and I now, as I ought to have done twenty years sooner, recommend its use to general notice, in cases of acute migratory inflammation, and especially when it attacks the joints, testicle, or sclerotic coat of the eye.

The infusion as directed by the London Pharmacopœia is sufficiently strong, and in many cases it is well to rub the part with eau de Cologne after the use of the tobacco.—*Med.-Chir. Trans. Vol. XVI.*

BLOODY PERSPIRATION.

A CURIOUS case of this kind is related in the French “Transactions Medicales” for November last.

Case. A young woman, aged twenty-one years, irregular in menstruation, and of indolent habits and obstinate temper, had been much irritated by some reflections made by her parents, on account of her abjuring the Protestant religion. She left her paternal roof, and after wandering about for some time, took up her residence in an hospital. She then was suffering violent attacks of hysteria, attended with general convulsions, and exquisite sensibility in the pubic and hypogastric regions. After paroxysms of hysteria, which sometimes lasted 24 or 36 hours, this female fell into a kind of exstasy, in which she lay with her eyes fixed, sensibility and motion suspended. Sometimes she muttered a prayer ; but the most remarkable phenomenon was an exudation of blood from the cheeks and the epigastrium, in the form of perspiration. The blood exuded in drops and tinged the linen. The cutaneous surface appeared injected in those parts whence the blood escaped, being red, and showing a network of arborescent vessels. This bloody perspiration took place every time that the hysteric paroxysm continued for a considerable time. This state continued for three months ; and ultimately gave way, it is said, to local bleeding about the head and sexual organs, together with strong revulsive measures.

ON THE LOSS OF BLOOD.

*Of the Treatment of the various Effects of Loss of Blood.**

THE treatment of the effects of loss of blood must be resolved into that which is general or constitutional, and that which is local ; and it must vary according to the peculiar state or stage of these effects. Syncope, reaction, and sinking, each, require their appropriate treatment.

The constitutional treatment must be stimulant in syncope, sedative and soothing in the state of reaction, and restorative in that of sinking. The local treatment must vary with the organ chiefly affected, and with the mode in which it is affected.

When syncope assumes a dangerous form, the principal remedies are, an attention to the posture of the patient, stimulants, and chiefly brandy, and the transfusion of blood.

The effect of posture is not, even now, fully known. It would be easy to allow the patient to lie over the edge of the bed, the head low upon the floor, and the feet greatly raised. In this manner such pressure would be restored to the encephalon as would in many cases support life, until, other remedies being administered, the patient might be placed out of immediate danger.

I need not, in this place, notice the importance of a regulated mode of giving brandy and nourishment. I think it is frequently given in such quantities as actually to induce sickness, and its own rejection from the stomach, so as to frustrate the object of the physician completely. The effect should be carefully watched. The physician ought not, of course, in such a case, to leave the patient for a moment.

The next remedy is transfusion. Unfortunately it has too frequently happened that the proper period of adopting this measure has been allowed to pass by. Not only the vascular system is exhausted, but, after a time, the functions of the nervous system have begun to fail. It might be a question, therefore, whether galvanism might not be usefully conjoined with transfusion.

It is an important point to determine how large a quantity of blood the system will bear to receive under various circumstances of exhaustion. Too much may overwhelm. Too little may be inadequate to the accomplishment of the object in view.

It is also an important question whether the operation should be done at once, or at twice, or thrice, and with what intervals. As the system cannot bear a sudden reduction of the quantity of blood, so it may not be enabled to bear its too sudden restoration.

It is almost needless to add, that a due attention must be constantly paid to assist the arterialization of the blood, by the admission of fresh air ; and to sustain the animal heat by proper clothing, and especially warm applications to the feet.

If there should be convulsions, delirium, or coma, it may be necessary to apply a sinapism to the nape of the neck ; and in the two former cases, some mild sedative, as the tinctura hyoscyami, may be of advantage.

* Extracted from the excellent work on this subject, by Dr. Marshall Hall.

In the case of excessive reaction, the remedies appear to be, first, extreme quiet of the body and of the mind ; then, the mildest sedatives, especially the hyosciamus ; thirdly, the mildest nutriment ; and lastly, and above all, time.

The pain and throbbings in the head, the intolerance of noises, the general susceptibility to disturbance, the palpitations of the heart, alike demand the utmost quiet, to which everything soothing in the manner and treatment must be added. The *tinctura hyosciami* is, I think, the kindest anodyne and sedative in these cases. The cause and other circumstances of the case, point out the necessity for mild nutriment, to which perhaps the minutest quantities of brandy may be added.

It may be necessary to subdue the throbbing action of the head, by local bloodletting even ; and it is most remarkable how small a quantity of blood being taken, will relieve. An interesting example of this kind, is given at page 60. Two or three leeches are frequently quite sufficient.

But the most unequivocal remedy is a cold spirituous lotion applied all over the head, by means of a cap consisting of one fold of stocking.

In exhaustion with delirium, the *tinctura hyoscyami* should be conjoined, in full doses, with the other remedies. The morbid susceptibility, not only of the brain, but of the heart, is greatly assuaged by this remedy.

In cases of exhaustion with sinking, stimulants must be administered abundantly. Cataplasms of mustard may be applied to the nape of the neck, and to the feet. It is difficult to imagine what would be the effect of transfusion of blood ; I have no doubt that galvanism would prolong life ; and I should think the two remedies might be conjoined with advantage.

In all cases of exhaustion the functions of the bowels suffer. Constipation and flatulency are the usual consequences. These are best relieved by the warm water enema, which must, however, of course, be administered with due precaution, to prevent further exhaustion.

It is interesting to observe the blunted sensibilities in syncope and in sinking, and to compare them with the morbidly acute sensibilities of the state of reaction. Sinapisms to rouse, and the *tinctura hyosciami* to lull them, are, in their respective places, remedies of the greatest value.

Sinapisms may tend to save or prolong life, in the sinking state, on the principle of exciting inflammation. For it will be seen shortly, that during a state of inflammation, the system is far less susceptible of the effects of loss of blood generally, than in health.

After the due administration of bloodletting, there are three other remedies, the use and abuse of which still offer matter of interesting inquiry to the practical physician, both in their relation to the morbid effects of loss of blood, and to other diseases. These are, purgative medicines, brandy, and opium.

Aperients must be given, yet gradually given, in cases of debility or exhaustion. The bowels become disordered, and must be gently relieved ; but the more active operation of an aperient would add to the exhaustion.

The powers must be recruited and sustained, and for this purpose brandy must be administered, yet cautiously. Too much stimulus would hurry the action of the heart. The proper criterion for the use of brandy

is, on the contrary, that it should allay the morbidly increased action of this organ.

Opium, if properly given, allays the morbid sensibilities and actions of the system. But if it be administered in an undue dose, it is apt, I am persuaded, to lower the powers of life, by directly subduing the energies of the nervous system, or rather by inducing an impaired condition of the respiration. The undue action of opium, resembles, in fact, the case of subtracted nervous energy by the division of the eighth pair of nerves, with the superadded influence of impaired respiratory movements.

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B O S T O N , F E B R U A R Y 2 2 , 1 8 3 2 .

CEREALIAN ORIGIN OF CHOLERA.

IT is a remarkable circumstance in the progress of this disease, that in the several countries which it has visited, the number of deaths among those in the more favored classes of society should have been so small. This circumstance is at the present moment noticed in England, and a similar observation was made at various places on the continent. As a confirmation of this fact, it will be recollected, how few individuals of any note have been mentioned as having died of cholera. Marshal Diebitsch has, indeed, been quoted to show that it attacked all ranks indiscriminately; but besides that this individual, from the description we have of his person, must have been a bad subject for the attack, the very circumstance that he is named so frequently, strengthens our impression that he constitutes one of a small number of exceptions. It would appear then that beside the general cause which exists in the atmosphere or elsewhere, whenever the disease is present, something more is ordinarily necessary to bring this malady into operation: such as want of personal neatness, imperfect ventilation, improper diet, intemperance, and other causes tending to depress the general vigor of the system. These causes as we know exist to a considerable extent in all the cities which this pestilence has visited; while the open country inhabited by a vigorous and hardy peasantry, has to a remarkable degree been exempted. If, then, in the course of human events, we are destined to be visited by this epidemic, we may hope that with us, as with them, it will be mostly limited to the towns, and that even in our great cities the comfort enjoyed by all classes of the community, the general prevalence of neatness and care of the person, the cleanliness of our streets and habitations, will, when aided by the experience we shall have derived from elsewhere, tend in no inconsiderable degree to control its ravages.

Among the speculations of the day in regard to the origin of cholera, one of the most curious, perhaps, is that of a late writer in the London Medical Gazette, Dr. Haygarth, who finds the proximate cause of cholera

to be dyspepsia consequent on the use of unhealthy bread, in a state not suited to human digestion. He observes that the flour of wheat which has been ground at a too early period after gathering, will neither yield itself properly to the process of fermentation, nor afford due aliment to the system. He supposes grain of all kinds, after its growth is completed, to undergo a peculiar process which, after Dr. Prout, he terms *merorganization*, and which is requisite to prepare it for digestion. On this subject he expresses himself in the following terms.

“If we regard the perfection of the panary fermentation as a test of the grain being sufficiently aged to be fit for food, or, in other words, that its *merorganization* is perfect, it would appear that this process requires several months for its performance; for I am informed that the new grain is not fit to be used by itself till about Christmas, until which time it is usual, in London, to mix a considerable proportion of old grain before sending it to the mill. If grain, then, is used in its too recent state, we suppose that, its *merorganization* being incomplete, too great a tax is laid on the *merorganizing* power of the stomach, and probably of the whole system; and this will, if other causes conspire, produce diseases of the stomach and its collatitious viscera; of which diseases cholera is one.”

Some defect similar to that just described Dr. H. supposes to exist in the bread stuffs of the poor population who have been affected with cholera. Nor is he, as it would seem, without some convenient facts to aid him in the establishment of this part of his hypothesis. He finds, for instance, in Georgia, in most parts of European Russia, in the northern parts of Prussia, Poland, and even in Hamburgh, that the common food of the poor is rye: and that the bread or rather cakes from this article, are made from the grain, uncleaned, ground with the husk, imperfectly fermented, half baked, and in this state kept for use. The liability of rye to become vitiated, both from the diseases to which it is subject and from the admixture of other seeds, is another circumstance of importance in considering its probable effects. In Persia, from whence the disease is supposed to be traced, the usual food is rice, “the supply of which, owing to the improvidence of the people, is seldom sufficient to last till the following harvest, so that the inhabitants are compelled to use the new crops in the most recent state.” It is also stated as matter of history that between the years 1770 and 1790, a disease ravaged various parts of Germany, particularly Silesia, Vrightland, and Lower Saxony, as well as parts of Sweden, Switzerland, and France, which by writers on the subject was attributed to the use of improper food, and particularly to that of rye. This disease, which is termed *Raphania* by Dr. Good, presented in its progress a striking analogy to the cholera in Russia, as Dr. H. makes evident by collating Richter’s account of the former with Drs. Barry and Russell’s description of the latter.

To render his arguments more conclusive, however, Dr. H. next notices a striking coincidence between the time of harvest in the different countries of Europe which have been visited by the cholera, and that of the appearance of the disease. The Russian cholera of 1829 made its appearance

about the month of August, which is about the period of harvest in that country. That of 1830 first showed itself in June at Rescht, a town in Ghilan in Persia, in the lat. of 37° . At Baku, lat. 40° , it appeared early in July; in the latter part of the month at Teflis, lat. 43° . On the 19th July it appeared at Astrachan, on the 4th of August at Tgaritza, on the 6th at Saratof, and, still going farther north, arrived at Penza on the 17th August. About the end of August it appeared at Nisen, lat. 56° , then branched off east-and-by-south to Casan, and west-and-by-south to Moscow, in both of which places it made its appearance about the same time—namely, the middle of September.

As Dr. H. appears to have written this article, which is published in the Gazette for Nov. 16th, before the existence of the virulent cholera in Sunderland was generally known, the following passage, which really contains the strongest argument in favor of his views, deserves to be quoted.

“I have also been informed, by good authority, that the late harvest in this country has not been productive of grain of so good a quality as is commonly believed. Mildew had been unusually prevalent—a disease of corn in which it is observed that a number of grains in each ear are small, and its organization imperfectly devoloped. How far this may have contributed to the unusual prevalence of cholera after our late harvest, I leave the reader to judge.”

Such is a brief abstract of Dr. Haygarth's paper, on the cerealian origin of cholera, which if it fails in establishing the premature use of grain as the cause of the present pestilence, certainly goes to show that bad living is a predisposing cause of common cholera, and has co-operated to render the present epidemic more severe and more fatal. There is, as we have said, some encouragement to be derived from this consideration: and should the disease come into our borders, as we can hardly dare hope to enjoy an entire immunity, we may at least anticipate that the favoring circumstances in our general condition will save us the experience of that fearful mortality which has marked its progress in the cities of Asia and of Europe.

TRANSFUSION IN CHOLERA.

WE referred in our last to a trial that had been made at Berlin, of the transfusion of blood in cholera. The account of these experiments is contained in a letter from Professor Scoutetten, of Metz, which was read at a late meeting of the Academy of Sciences, in Paris, by M. Arago. It is as follows.

“I have the honor,” says Professor S., “of addressing to you some observations, which I have made at Berlin, on the transfusion of blood: let the facts speak for themselves: be good enough to read them at the next meeting of the Institute; they may be useful to science and humanity, and perhaps prevent some unfortunate patient from being the victim of new experiments. The complete absence of blood in the arteries of the limbs appears to me a very remarkable fact, and the more astonishing that some lived in this state during five or six days, the capillary circulation being

restored, with the heat of the limbs, without the pulse being perceptible. I have numerous facts of this kind, particularly the history of a Pole, who was able to walk about without the pulse having returned. He died suddenly, when it was least expected; and this was the result in all those cases of which I speak.

CASE I.—After having tried all the ordinary means in a case of cholera, it was thought right to have recourse to transfusion of blood. October 15th the operation was tried for the first time, by M. Dreffenbach, in the hospital of M. Boehr. The patient, Frederick Muller, of good constitution, aged 27, had been ill seven hours and a quarter, and he was in the following state. Eyes half shut, sunk in the sockets, ball turned upwards; nostrils pinched; cheeks hollow; mouth partially open; tongue cold, as well as the face; respiration short and quick; blueness of hands and feet; complete absence of pulse; skin of fingers shrivelled. The patient, however, retained perfect consciousness of what was passing around him. The right jugular vein was laid bare to the extent of an inch, and opened in a longitudinal direction, and the barrel of a quill introduced into it. Blood was furnished from the median vein of a robust young medical man. It was received into a small brass syringe previously warmed, and injected into the vein of the patient to the extent of an inch and a half. This was followed by almost complete insensibility; after which the patient made two deep inspirations in succession; the eyelids were rapidly opened, and again shut; in five minutes there were convulsive movements of the head, which was drawn powerfully backwards; next followed convulsions of the legs, arms, and trunk, alteration of the features, plaintive cries, and groans. These symptoms lasted less than a minute, then ceased all at once, and the patient was dead. It is said that no appearances different from usual were found on opening the body.

CASE II.—The same day, transfusion was tried on a female, named Veber, aged 65. She was taken ill during the night; the operation was had recourse to at ten o'clock next day. The following is an account of her condition. Eyes sunk, and surrounded by a brownish circle; cheeks hollow; bones of face prominent; tongue hard, and feels cold; complete absence of the pulse; vomiting and purging rare; consciousness entire. The only remedy used had been a vapor-bath.

M. Dreffenbach proceeded to the transfusion. The median vein of the left arm was opened to the extent of half an inch: very little blood flowed from it. A quill was inserted, and blood furnished by a student 23 years of age. The first injection, of an ounce of blood, produced no effect; the same quantity was thrown in a second time. The patient then made two rather hurried inspirations; the eyes were somewhat agitated. She had some mint tea, and drank it easily. I asked her if she suffered, and she answered, "No." The operator wishing to introduce more blood, opened the left jugular vein, into which he injected about a drachm of tepid water, to be assured that there was no obstacle. He then threw in, at two injections, two ounces and seven drachms of blood. The patient felt nothing. The day was passed tranquilly; the pulse did not return. The usual symptoms went on, and she died six hours after the operation.

CASE III.—A man, aged 61, seized with cholera, was admitted into the hospital on the 16th of October. All the symptoms were well marked. The attack had come on about midnight. At ten o'clock in the morning the operation of transfusion was decided on, but, before putting it in practice, it was resolved to ascertain whether the circulation did or did not go

on; with which view M. Dreffenbach laid bare the brachial artery, to the extent of an inch, at the lower part of the arm. The vessel did not exhibit the slightest pulsation. An opening, five lines long, was then made in it, when it was found not to contain one drop of blood: having within only a small red clot, not larger than a sewing-thread. The parietes of the artery were clean and white. The patient, meantime, was perfectly sensible, spoke of the operation, and answered with precision all the questions put to him. The deep-seated textures were as cold as the surface; the veins of the fore-arm were filled with black blood; the median was opened, and two ounces and a half of blood were injected at three times. The patient felt nothing; complained of no pain, except very slightly of the wound made to expose the artery. After the third injection the pulse returned in the axillary artery of the fore-arm; it beat sixty times in the minute, but this only lasted five minutes. Even then, not a drop of blood escaped by the wounded artery. Some appearance of contraction of the iris, it was thought, was to be perceived during the transfusion, and the expression was a little more animated. The patient died two hours after the operation, which seemed to have had no influence on the course of the disease.

REPORT OF THE COMMITTEE OF THE HOUSE OF REPRESENTATIVES OF THE UNITED STATES, ON THE MEMORIAL OF THE NEW YORK BOARD OF HEALTH.

THE Memorial presented to the Congress of the United States, by the New York Board of Health, in which was suggested the expediency of some national act to protect the country from the ravages of the Cholera, was referred to the Committee on Foreign Affairs. We have been favored with the report of this Committee, in which they non-concur with the New York Board in the necessity of sending a commission to the scene of the malady, on the ground that the results of numerous like embassies are now before the public, and no further information could be expected from adding one to the number.—The Committee further report, that they agree with the memorialists in the ability of Congress, as part of their power to regulate commerce, to enforce measures of quarantine, and in the propriety of adopting some such means of protection as soon as it shall be deemed advisable: but they request to be discharged from the consideration of this part of the subject, as it is without their commission, and recommend that the same be referred to the committee on commerce.

Appended to the printed Report are numerous documents relating to this subject, most of which, or the substance of them, have been before presented to the reader.

Traveling Hospitals for Cholera.—Among the measures proposed in Paris for managing the cholera when it reaches that city, is the establishment of *ambulances* in each quarter. There will be a body of physicians, apothecaries, and nurses, ready to give the speediest succor. "It will be so ordered," says the proposer, "that the disease, the doctor, and the remedy, may enter together, or close on each other's heels;" "and that death also may probably be of the party"—adds one of the wicked wits.

Preservation of Blood.—Sugar refiners and others are often inconvenienced by the difficulty of obtaining blood at the time when it is required for use. M. Tonrsel has endeavored, in part, to remove this difficulty, by proposing a method of preserving this agent for some time without injury.

It consists in putting the blood into bottles or other vessels with very narrow mouths, and being careful to fill them up to the neck; a layer of oil, to the depth of at least half an inch, is then put upon it, to cut off communication with the atmosphere, and the whole is left to itself. M. Tournel states that he has in this manner preserved blood, with all its physical and chemical qualities, from the first of December, 1827, to January, 1829.

Presence of Manganese in the Blood.—(Prof. Wurzer, of Marburg).—In some analyses of human blood, according to Engelhart's method by liquid tests, Professor W. was led to suspect that, besides the usual results, he had also obtained a small quantity of Manganese; not being, however, quite sure of the correctness of his analyses, he was induced to repeat them in the following manner:—The blood, which had been obtained by venesection, on the day before the experiment, was ignited in an open crucible, the incinerated mass oxidized by nitre, and then diluted with water; the residuum was dissolved in muriatic acid, and the iron precipitated from the solution by succinate of ammonia. As the precipitate contained also some phosphate of lime, it was again ignited, and then dissolved in muriatic acid; the phosphate of lime was separated from the solution by alcohol, the excess of the latter expelled by heat, and the iron precipitated by ammonia. By boiling the filtered liquor with carbonate of soda, the manganese was precipitated, and then dissolved in nitric acid, and again ignited. In two grammes of the coal was found 0.108 oz. of iron, and 0.034 protoxide of manganese.

Boylston Medical Society.—The following gentlemen have been elected officers of the Boylston Medical Society, for the ensuing year: George W. Otis, M.D. President; John C. Howard, M.D. Vice President; John Odin, Jr, Secretary; Mr. Henry Tuck, Treasurer. The annual prizes offered by the Society, have been awarded as follows: The first to J. Mason Warren; subject, "Comparative Anatomy of the Digestive Organs in the four Classes of Vertebral Animals." The second to Thomas K. Thomas; subject, "Iritis."

Merited Distinction.—Dr. Russell is to be created a Baronet, and Dr. Barry to receive the honor of Knighthood, with promotion.

Mortality of Boston for the year 1831.—The following are the diseases, precisely as reported to the Health Office, which have occasioned the deaths in this city the past year:

Apoplexy, 11; Asthma, 2; Abscess, 4; Accidental, 11; Brain Diseases, 4; Bowel Diseases, 13; Bleeding, 5; Burns, 13; Child-Bed Diseases, 14; Catarrh, 1; Consumption, 203; Cholera Infantum, 7; Cholera Morbus, 14; Convulsions, 29; Croup, 53; Canker, 14; Carbuncle, 1; Cancer, 5; Colic, 1; Colic, Bilious, 3; Dropsy, 28; Dropsy of the Brain, 51; Dropsy of the Chest, 4; Diseases unknown, 182; Disease of the Spine, 3; Dysentery, 28; Drinking cold water, 1; Diarrhœa, 1; Drowned, 15; Delirium Tremens, 6; Debility, 20; Erysipelas, 2; Fever, unknown, 11; Fever, Intermittent, 2; Fever, Nervous, 2; Fever, Lung, 81; Fever, Inflammatory, 2; Fever, Typhous, 21; Fever, Brain, 18; Fever, Scarlet, 58; Fever, Bilious, 4; Fever, Spotted, 1; Frozen, 1; Fracture, 1; Hooping Cough, 26; Heart Dis-

eases, 8; Hip Complaint, 2; Inflammation, 3; Inflammation of the Bowels, 18; Inflammation of the Lungs, 16; Infantile Diseases, 56; Intemperance, 38; Insanity, 1; Influenza, 22; Jaundice, 1; Liver Complaint, 11; Measles, 2; Mortification, 9; Old Age, 67; Poison, 1; Pleurisy, 4; Palsy, 11; Quinsy, 5; Rheumatism, 4; Rupture of Blood-vessel, 2; Rupture, 1; Stillborn, 71; Scald, 3; Scrofula, 2; Sudden, 5; Skin, Disease of, 1; Smallpox, 4; Stomach, Disease of, 1; Suicide, 12; Spleen, 1; Spasms, 5; Suffocation, 2; Tumor, 5; Tic Douloureux, 1; Throat Distemper, 26; Teething, 10; Ulcer, 3; Wounds, 3; Worms, 3.—Total, 1,424.

The comparative mortality of the different months was as follows.

January, 99;—February, 84;—March, 109;—April, 97;—May, 82;—June, 89;—July, 98;—August, 125;—September, 126;—October, 136;—November, 142;—December, 237.

Whole number of deaths in Boston for the week ending February 10, 32. Males, 20—Females, 12—Stillborn, 1.

Of convulsions, 1—inflammation on the lungs, 2—child-bed, 1—old age, 3—consumption, 9—inflammation on the brain, 1—intemperance, 1—cholera infantum, 1—lung fever, 1—typhous fever, 1—infantile, 2—scarlet fever, 2—unknown, 1—suicide, 1—influenza, 2—erysipelas, 1—throat distemper, 1—fever, 1.

MECKEL'S ANATOMY, 1st VOL.

CARTER & HENDEE have this day received, Manual of General, Descriptive, and Pathological Anatomy. By J. F. Meckel, Professor of Anatomy at Halle, &c. &c. Translated from the German into French, with Additions and Notes, by A. J. L. Jourdain, Member of the Royal Academy of Medicine at Paris, &c. &c., and G. Breschet, Adjunct Professor of Anatomy at the School of Medicine, &c. &c. Translated from the French, with Notes, by A. Sidney Doane, A.M., M.D. Feb. 15.

GREY'S SUPPLEMENT.

ANY one having Grey's Supplement to the Pharmacopœias, London edition of 1828, belonging to the subscribers, will confer a favor by returning it. JARVIS & PEIRSON. Feb. 15.

MEDICAL BOOKS.

A PRACTICAL Formulary of the Parisian Hospitals, exhibiting the prescriptions employed by the Physicians and Surgeons of those establishments; with notices of the various Hospitals, and copious remarks upon the Medical Doctrines of the Practitioners who preside in them. By F. S. RATIER, M.D. Doctor in Medicine of the Faculty of Paris, and Corresponding Member of the Royal Medical Society of Bordeaux. Translated from the French, with Notes and Illustrations, by R. D. McLELLAN, M.D., Licentiate of the Royal College of Surgeons, London.

ALSO,—Magendie's Formulary, for the preparation and employment of the New Medicines, —such as Strychnine, Emetine, etc.—Translated from the French, with an Appendix, containing the experience of the British Practitioners with many of the new Remedies. By JOSEPH HOULTON, F.L.S., Member of the Royal College of Surgeons, London; Associate of the Medico-Botanical Society.

The American Editions of the above valuable works, in any quantity, as also the most popular of the medicines therein mentioned, are for sale at the store of the subscribers, who have for sale an extensive assortment of Surgical Instruments, Chemical Substances and Apparatus, at wholesale and retail, on satisfactory terms. SAM'L N. BREWER & BROTHERS, Feb. 1. 6t.

No's. 90 & 92 Washington Street, Boston.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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THE DOCTRINE OF INTRO-ANIMATE PATHOLOGY:

Being a Thesis proposed by JOHN C. NYANDER, a Native of Calmar, under the Presidency of Doctor Charles Linnæus, at Upsala, 23d June, in the year 1757.

OF all diseases, there are hardly any of which the origin has appeared to Physicians to be more abstruse, than those called contagious : inasmuch as a body, hitherto in the most perfect state of health and in the strict observance of every rule of diet, is found equally liable to be contaminated, as that of one giving himself up to every sort of excess, provided only, there shall be too near an approach to a person laboring under disease.

And our wonder is the greater on observing that there are many other contagious diseases, which being indigenous amongst us, arise as it were spontaneously almost every year, such, for instance, as the itch, hydrophobia, hooping cough, and dysentery ; whilst there are others again which never arise, except from holding intercourse with diseased persons having these complaints from a foreign derivation : such for instance are the plague, measles, smallpox and syphilis. And here it will suffice to quote a few of the conjectures which have been formed by some of the most learned Physicians in respect to the origin of these, since various opinions have been cherished by various writers.

They have been ascribed to putridity, by Fracastorius, Rhodius, and Mindererus ; to a sulphureous self-increasing putridity by Hoffman ; to a sort of fermenting miasma by Junkerus ; to somewhat corrosive by Alpinus ; to an acrid volatile salt by Sylvius ; to an arsenical virus by Sorbait ; to imagination and terror by Rivinus ; whilst others again have imputed them to virulent exhalations from the earth ; others to celestial influences and conjunctions of the planets ; some also to exhalations from heaps of dead bodies corrupting and vitiating the atmosphere ; and others, as Kircher, &c., to a verminous putridity. But, of all the above quoted causes, which are universally brought forward by authors, that appears to us to be the most probable, which asserts “ that contagion arises from living animalcules,” as Rivinus and others, who ascribe the itching of Exanthemata to the existence of acari. In our attempt therefore to proceed by this path, we shall expatiate no further than we may feel ourselves justified by the guidance of our experience, and whenever we shall arrive at that point which is only probable, but which

has not hitherto been actually made the subject of ocular demonstration, we shall merely touch upon it with all brevity, and state it as an hypothesis.

Contagious diseases, then, for the most part, all coincide in this peculiarity, that they are attended with exanthematous eruptions, either externally or internally, insomuch that even hydrophobia is said to produce certain pustules underneath the tongue ; so that in all contagious maladies there exists a certain exanthematous matter, the eruption of which usually mitigates the febrile symptoms ; that the presence of this matter excites bodily uneasiness, if not feverish actions, and that, even in its mildest form, the disease is exacerbated at some certain hour of the day, or towards evening. That the power of the disease is increased by *sweet* articles, but diminished by *bitters*, and that the irritation is excited by *fat* articles of diet. That it is somewhat repelled by cold, but like everything animate, is cherished by warmth, although it appears to be expelled by great heat : thus, from the application of heat, the itch and every exanthema is augmented, and from increase of heat and fever driven outwards to the warm surface of the body. That they are destroyed by *anthelmintic* remedies, and therefore *sulphureous* remedies cure the itch : and thus *mercurial* medicines, (as they are destructive to nearly all insects), cure both the itch and syphilis, and prove preservative both from the plague and smallpox. And that as tobacco kills all minute insects, fumigation with it prevents contagion. That both analogy and the sense of itching in the pustules of contagious diseases, seem to warrant the same inference. That both in itch and dysentery, the existence of minute insects has been the subject of ocular demonstration. That Langius had observed them in measles ; and Kircher in the plague ; Hauptmann in syphilis (animalcules resembling slugs) ; Zeigler in Petechiæ ; Lusitanus and Porcellus in smallpox, and that the last mentioned had observed also worms in cases of serpigo and other cutaneous diseases.

Both from analogy, therefore, as well as from all the experience hitherto acquired, we may very easily believe that very minute insects of that kind, such for instance as *acari* of various species, may be the causes of several contagious diseases. Nor is their size or structure at all repugnant to such an idea—since there are animalcules so minute that the human eye unassisted by the microscope cannot even perceive them. The lynx-sighted Lewenhoeck observed thousands of insects (or animalcules more properly speaking) which added together scarcely equaled in size the hundredth part of a grain of sand, and even in those fluids which to the naked eye seem altogether pure and diaphanous. While the accurate and ingenious Reaumur has stated it to be his opinion, that that obscure vapor which somewhat darkens the atmosphere in summer, is nothing else than myriads of insects, so minute as entirely to elude human vision. And the same naturalist has demonstrated, that these do not exist separately only, but also congregated in societies similar to those of bees and ants, and that these also observe amongst each a certain regular order.

From any evidence of our senses, therefore, we must draw no argument as to the impossibility of the thing : for the divine PROVIDENCE of the all-wise Creator of the universe is equally manifested in the most

minute, as well as in the greatest, of his arrangements. Whilst we inspect a living acarus, we feel assured that, minute as it is, it is provided with muscles, nerves, veins, arteries, and viscera : and that all these, however small, are yet adapted to contain the most subtile fluids, calculated to circulate through them : all this too we are perfectly warranted in believing. Whence these animalcules shall have proceeded we may well wonder, but we are scarcely warranted in that wondering, if at the same time we but think that these being of such very minute proportions, that they hardly exceed in size the atoms of the atmosphere, can yet fly through the air and seek out the most minute chinks, exactly in the same way as mucor arises constantly from its seeds, sowing themselves wherever any putrid matter shall exist in a state fitted for their reception.

SCABIES.

Of all contagious ailments, this probably is the most common, and the most obvious to our senses. It is a well ascertained fact that this cutaneous malady is excited by the *Acarus Syro*, which, although so minute as scarcely to be seen by the naked eye, can be generally detected lurking under the skin, where there is a certain bluish spot, and that it can be taken out upon the point of a needle and placed upon the nail. If then we place it upon the skin and breathe upon it gently, so as to excite it by the warmth of our breath, it can be easily distinguished creeping away and displaying its minute structure, till it shall have found out a wrinkle in the skin, when it immediately begins to make a burrow for itself exactly in the manner of a mole, by digging down with its claws. The *Acarus* (No. 1195 in Linn. Fauna Suec), although a little more highly colored, resembles it very much. If a morsel of cheese, or a little flour, be placed aside for some time, so as to remain undisturbed, we frequently observe myriads of these insects or mites feeding on either of these substances ; hence too, it happens, that when nurses, instead of using the powder of lycoperdon, or flowers of zinc, scatter wheat-flour on the groins and armpits of infants suffering from *Intertrigo*, these parts become frequently attacked with the itch, which will return there again and again after being cured, unless that practice be left off : and these infants too will communicate the disease to others. We therefore conclude that the acari produced in wheaten or oat flour, and those of the itch pustules, constitute one and the same species.

Dr. Zweib has observed these acari depositing their eggs, multiplying themselves in a very short period of time, and has seen them living for several days, outside the body. But Lewenhoeck has long taught and delineated them as being viviparous.

We find therefore that the itch is propagated constantly, either by means of actual contact, or by articles of dress, or from associating with infected persons. The itch-insect seems to be impatient of cold, but agrees well with warmth, wherefore the itch is repelled by cold and exasperated by heat, so that we have found that the same cause which shall have excited the itching externally, hath produced fever internally, which has not ceased before full eruption or efflorescence. Wherefore reasoning on this phenomenon, and comparing it with the causes of exacerbations in fevers, (which also excite of themselves a very violent

itching,) it is natural to entertain the opinion of these also being contagious. For a like effect seems to betoken a similar cause, and nature, which is ever self-consistent, is scarcely ever wont to make violent starts—although, from the obscure nature of the subject, we do not feel ourselves warranted in further assumptions.

In the itch of animals (called mange) acari are detected with greater difficulty, not however that they are altogether exculpated from them, since there is another species (the *acarus exulcerans*) which we can easily discover by means of a magnifying lens, which are distinguished by four hind legs and twice as long as their body : and thus the cause too of this malady is placed beyond all doubt. And as we are in the habit of preserving specimens of insects in our museums by the presence of the ambrosiacial drugs, such as musk, civet, sweet flag, camphor, the essential oil of birch-bark, &c. ; so we also find the exhibition of these remedies proves quite successful in driving outwards the eruption of exanthemata, when they have been suddenly repelled. When musk has been suspended in a necklace round the throats of infants, it has been found effectual in preserving them from smallpox when raging epidemically, as has been proved experimentally by our president Linnæus, and as is customary with the inhabitants of Norway, and as appears to be the case from some instances quoted in the lately published *acta petropolitana*.

In respect to the *itch of old age*, the same reasoning applies, and experience has also demonstrated the existence of acari therein. When it has once attacked the body, should it go off spontaneously, it very seldom returns. Some years since we observed two goats infected with the mange chiefly in the mouth and face ; one of them died of it, but the other, to whom musk was given, became perfectly sound, within the short space of three days.

THE DYSENTERY.

The dysentery is an epidemical itch, attacking the internal surface of the intestines, as appears from the dissections of the bodies of those who die from dysentery, and that it is propagated by means of places of necessity, and through common sewers, there is not any experienced physician who now entertains a doubt. Bartholine narrates the case of a certain Danish physician at Heilsinburg in the last (17th) century, who having been frequently attacked by dysentery, examined his excretions, and found them swarming with living insects, in a state of motion, and so minute that he could scarcely observe them. And in this place we must not omit to mention a case in the highest degree illustrative of the above quoted fact.

About four years ago, Dr. Rolander, being then a pupil of and boarded in the family of our president Linnæus, having been attacked with dysentery, was cured in the usual manner with preparations of rhubarb and paregorical remedies. Eight days thereafter he relapsed into the same disease, and was again cured by the same remedies. But a period of eight days having again past, he was a third time attacked with dysentery. A rigorous inquiry was now instituted to detect the cause of this, but all in vain, seeing that the patient enjoyed the same table and followed the same course of life with all the other members of the family, who were

enjoying perfect health. Therefore our learned President advised the patient (who was much addicted to the study of entomology) to examine carefully his dejections, by which it might the more clearly appear, whether the above quoted observation of Bartholine really held good or not. On Rolander's doing so, he reported that he had observed myriads of animalcules, and which upon being accurately described proved to be exactly similar to those of flour. And some one conjectured that the cause of these was to be found in a certain nocturnal beverage, whilst others again conceived that this was not adequate to produce such an effect.

Rolander had not been accustomed to take any beverage during his meals ; during the night, therefore, being incommoded with thirst, he was in the habit of swallowing a very diluted beverage from a cup (a bicker) made of juniper wood ; on inspecting this cup, he found a small whitish line scarcely to be perceived by the naked eye, running between the crevices of the wooden staves of the cup, and having applied a magnifying glass, he found that all this white line consisted wholly of innumerable acari, of the self same species with those which he had remarked in his excretions. On the beverage being poured into a cup they did not stir, but at midnight having quitted their retreats, they emerged to the surface and floated and remained there till the hour of ten in the morning, feeding themselves ; when they dived and re-entered the chinks they had quitted. This fact he discovered after repeated observations. Having taken out these acari and placed them upon a moistened watch-glass, they were found to be but little irritated by the adfusion of various liquors, and that even after the application of oil itself they remained unhurt : but they were particularly annoyed by the application of spirits of wine (alcohol) and most especially by the spirituous tincture of rhubarb. A fact especially worthy of notice, seeing that rhubarb is actually a specific for dysentery, and that the *lapathum acutum* or sharp pointed dock, which is a plant very nearly related to it, is a common remedy for the itch, and is demonstrative both of the affinity and analogy of the two diseases, and their remedies. These acari adhered firmly to the wooden cup after three ablutions in hot water. Rolander also searched for them in other situations, and found them most frequently in vessels containing acid beverages and also beneath the bungs of casks. That dysentery, which infects the territories of Sweden almost every year, during the harvest time, as well as that which is common in camps, most probably derives its origin from the self same acari lurking in acidulous beverages, and which, by means of the necessaries, are propagated, and thus give rise to what is called contagion. In the Old Testament therefore it was enjoined that every soldier should immediately bury in the ground his own excretions. Would it not therefore be advantageous both to the Swedes, and all soldiers who are encamped, to use in preference earthenware and metallic drinking vessels, because these insects can only with difficulty adhere to such vessels. It is hurtful, as the common proverb goes, to drink during the night when languid from an empty stomach, unless the superior portion of the beverage be first poured off and rejected. The vulgar are ignorant of the real cause for this custom, but the above recited observation, proves that these acari are then in motion,

and hence no doubt has arisen this fashion. A pain in the bowels is excited by a draught of vapid liquor, which again is generally suppressed by taking a small quantity of proof spirit, which in its power of injuring these acari approaches nearest in efficacy to rhubarb.

THE HOOPING COUGH.

This disease, not so much known to our progenitors as at present, now generally attacks our infants. The epidemy therefore of this malady must of necessity be such a miasma that it can easily evaporate from the sick and be propagated and multiplied, but we apprehend that all these predicates can only be attributed to something endued with life. The domestic remedy which the Vestrogoths or Norwegians commonly employ against this malady consists of *the infusion of the ledum palustre*, (a plant which is also employed to cure swine and cattle of lice,) and which being remarkable as a most powerful narcotic and strong scented poison to insects, seems to denote that the causes of this malady also are to be found in animalcules. And to this is to be conjoined the very remarkable fact noticed by Dr. Wahlbone of Calmar, who prescribed for an infant, laboring under this disease, some musk julep, made according to the London Pharmacopœia Formula, from which remedy after being taken for two days, the patient's body became flushed with an efflorescence or slight itching, and the hooping cough disappeared: a short period having elapsed, the complaint returned, and the itching having receded internally, he again administered the same remedy, which again produced its first effect, and the infant was perfectly cured. May not therefore the hooping cough be derived from a certain species of acari, which more particularly affect the organs of respiration, and thence derive their nourishment, since the disease is both cured and relieved by the same sort of remedies which destroy acari.

Why this same disease, like the smallpox and the measles, should attack us only once during our lives, and but very rarely returns, we are just as ignorant as why the itch of old age should not make more frequent attacks.

THE SMALLPOX.

Between the smallpox and the beforementioned diseases there is a great correspondence. It originates from some unintelligible cause either in Europe or America, and is never transferred to us (in Sweden) except by means of contagion. But it is very likely that it is excited in the same manner, more especially as children who have been fed too much on a *sweet* diet, and whose fluids are unusually bland, are more infected with this disease, in like manner as they are with the itch.

Some years ago, when smallpox was very fatal at Upsala, and was carrying off nearly all the infantine population in the neighborhood, our president Linnæus suspended necklaces containing musk around the necks of his own children, as has long been the custom amongst the Norwegians; by which means he succeeded in preserving them uninfected from this fatal scourge. It has latterly become the custom to foment the thighs of patients laboring under the smallpox, in the common way, with a fomentation of milk sweetened with sugar; whereby, the insects appear to be

attracted as it were to those parts of the body ; for the thighs seem to become quite beset by pustules, but all the rest of the body is much less affected with the eruptions.

It is a custom with the Chinese, in preparing their children to receive the smallpox, to administer previously some mercurial and sulphureous remedies, and a little saffron also (with which last drug the Chinese sailors dye their shirts to prevent their being absolutely devoured with vermin) is applied to the eyes, to guard these delicate organs from the smallpox virus ; they also add a quantity of musk to the matter used in their inoculation, which is there performed by stuffing some dossils of lint contaminated with the pus up the nostrils. By which addition of musk they think to expel the acari from the sanies produced in the frontal sinuses—they also excite some artificial issue, which is not allowed to be healed up, till the whole disease has quitted the body, being of opinion that the exanthematous matter is chiefly accumulated there, from somewhat animate, which, owing to the urgency of the internal injury, is driven outwards and thus seeks vent, which, being thus obtained, procures relief to the patient.

THE MEASLES.

This is a disease which, from its nature and foreign origin, seems nearly allied to the smallpox—the seeds of columbine (*aquilegia*), (which are poisonous, and nearly resemble those of *staphisagria* or stavesacre, commonly exhibited as a remedy against the itch in children, and which, in the hands of ignorant old women, have frequently proved fatal to infants, when given in too great doses)—these seeds of *aquilegia*, in Sweden, when powdered on some musk, are very commonly given, as a remedy, to patients suffering from measles and smallpox, that the eruptions may, by these means, be driven outwards to the surface of the body, and the internal viscera relieved from the violent action of these diseases. In the obstinate cough and oppression of the breast which affect persons attacked with measles, when scarcely anything is found to avail, flowers of sulphur, in small and repeated doses, conjoined with febrifuges, are found to be quite a specific. In a word, all remedies which are found to be efficacious, either as curatives or prophylactics, to persons attacked with either smallpox or measles, also possess great efficacy in destroying insects, either because they cannot endure the smell of these medicines, or because they are thereby driven outwards to the surface of the body, and expelled.

THE PLAGUE.

It seems to be an assured fact, that the plague never arises in the seaport towns of Sweden, unless from a contagion imported from foreign countries. That it is multiplied and propagated—that it also rages and abounds chiefly in low and putrid regions in the warmer countries. That it gathers strength and becomes more inveterate when assisted by a certain corrupt state of the atmosphere, being checked towards winter, but breaking out afresh on the coming on of spring and summer. That according to the testimony of Dr. Timoli, it, the plague, is not found to enter houses that have been thoroughly cleansed and purified. That its advent

is generally foretold and preceded by several, and for the most part contagious, diseases. That it is always attended by exanthematous eruptions. That its miasma can be equally swallowed mixed with the saliva, or introduced through the pores of the skin. That the powers of this miasma, according to the experiments of Dr. Sylvius, are weakened by acids diffused through the atmosphere, and destroyed by acids themselves. That this pestilence, when lately for the first time it broke out at Moscow, was cured, according to the testimony of *Schreiber*, by mercurial medicines, the most noted remedies against the itch arising from acari. That musk and camphor also, according to the same author, were found to avail greatly in the cure of the plague. All which observations, which are most true, appear to indicate that insects are in reality the cause of pestilence.

THE SYPHILIS.

That syphilitical diseases, we are of opinion, more especially as they never arise without the contact of fluids, (through sexual intercourse, &c. &c.) seem conjoined by an intimate analogy with the plague, and that they take their origin also from animalcules, but which insects are aquatic. Hence also, it seems to appear, that fevers of that kind are excited by acari, seeing that they are expelled by medicines appropriated to their destruction. Wherefore, that the itch and the dysentery may frequently arise amongst ourselves (Swedes), follows from the above recited facts, since it appears that the cause of the former is common in the flour of grain, while that of the latter is to be found in our drinking cups. But, on the contrary, that the insects producing the plague, smallpox, &c. are exotic, and it appears probable cannot exist amongst us unless imprisoned in an infected body, or some other, to them, properly adapted mode. Perhaps the cause of this circumstance is to be attributed to our more severe climate, or to the more tender nature of these acari ; for if we may be permitted to reason from more obvious to more subtle facts—while some insects are indigenous amongst us, some there are only to be found in summer, while we observe others again, which are only found to live within our houses, where the artificial warmth of a fire preserves them alive. These last, we are of opinion, have proceeded from countries lying more towards the south, but of all these the tenderness has not been equal, for we also observe insects which have come hither from the warmest regions of India, and which have adapted themselves to our climate and country. The same thing has happened, likewise, to those animals, of whom a much greater number must have been found formerly in some particular places ; whence indeed they must have diffused themselves far and wide, and produced their own melancholy effects. Of these, some, it may possibly be conceived, have become domesticated amongst us, and thence we may be able to explain why some diseases, formerly unknown, have arisen in certain localities and become disseminated afterwards. Hence, too, we are naturally led into that track, whereby we can discern the reason why certain diseases are more prevalent at some particular seasons of the year. For besides, that most contagious diseases rage chiefly during the summer quarter, being that when all insects most abound, the greatest

difficulty, and arising from the artificial œconomy of these animalcules, which, by the wonderful analogy of exanthematous diseases, we acknowledge, may possibly be solved—namely, in what manner does a dead body always throw out its own peculiar eruptions, according to the variety of circumstances, from the internal parts towards the surface, in so determined a manner. What, I say, is more probable, than that organized animals effect this? What more adapted for this act, than the most minute insects, whose wonderful manner of existence excites the admiration of the best naturalists? What is there to hinder these most minute insects from inhabiting our bodies, seeing that we cannot be said to be altogether free from others of greater size? For many entire insects, of various kinds, both in a state of metamorphosis and even after having suffered their changes, have been found alive in the human stomach, &c. &c.

VALUE OF ACCURATE PROGNOSIS.

On the value of accurate Prognosis, in a letter to Sir Henry Hallford, Bart. By GEORGE E. MALE, M.D., one of the Physicians to the Birmingham Hospital.

SIR,—Having read with much interest, the papers re-published by you, in the small volume with which you have lately favored the profession, my conscience reproves me for not having fulfilled my intention of communicating to you a case of ischuria renalis, which I did intend to submit to your perusal at the time it occurred. I considered this communication due to you, as it was to your observations on that disease, contained in an early volume of the Medico-Chirurgical Transactions, that I was enabled to deliver a prognosis at the very commencement, of the only instance of it I at that time had ever seen. I will give the case, without comment, as I find it in my note book.

—Dyer, a publican, aged 65, neither fat nor bulky in stature, temperate, and generally healthy, was seized on Monday, 7th of May, 1821, with pain in his bowels, for which he took tincture of rhubarb, castor oil, and salt, at different times, which purged him considerably; he passed no urine, nor did he feel any inclination to do so. The next day he was free from complaint, and rode on horseback three or four miles, without pain or inconvenience. I was called to him on Friday, the 11th, on account of the cessation of the secretion of urine, and found him apparently in perfect health, without pain, or great uneasiness of any kind, nor had he experienced any since Monday. There was no swelling of the legs nor abdomen, nor any fulness of the region of the bladder; but he experienced a dull sense of weight about the kidneys, and almost a total suppression of urine. The quantity passed since Monday (four days) did not exceed half a wineglassful, but it was clear, and of natural appearance, unmixed with gravel. He had experienced former attacks of this kind, and vomiting relieved him; he had formerly passed gravel. His bowels being costive, I ordered him one grain of the extract of elaterium, having often observed its good effects in exciting the action of the kidneys; the warm bath was proposed, but

he objected to it, as it had done him no good on former occasions ; therefore fomentation of the loins was substituted, and the following mixture or dose.

R. Aquæ fontanæ. Aquæ menth. piperit. āā ʒ iij. Potassæ supertartratis, ʒ i. Spt. ætheris nitrici, ʒ ss. M. capiat coch. duo larg. tertia quâque hora.

12th. The pill of elaterium had but little effect on the bowels, but excited some vomiting. No urine passed.

Recollecting a case recorded in the Medico-Chirurgical Transactions, by Sir Henry Hallford, I apprised the patient's friends of his danger, and foretold that he would, in a few days, become senseless, and die as if by apoplexy. Seeing no appearance of any great deviation from health, my prognosis was received by them with silent doubt. The elaterium was repeated in the same dose, and I took care to ascertain that it was genuine. A catheter was introduced into the bladder, but very little urine followed. Repeat the mixture. R. Tinct. digitalis, ʒ ss. Tinct. Lyttæ, ʒ i. M. sumat guttas lx. tertiâ quâque horâ ex decoct avenac cyatho.

Having no thirst, he is unwilling to drink. Pulse 86, soft but full ; some stupor and drowsiness is experienced. Mitt. sanguis ad ʒ xiv. et appl. emplast. lyttæ largum lumbis.

13th. The bladder again examined with the catheter ; no urine followed, nor has more than half an ounce been passed. Still no pain. Blister rose well, and discharged much. The elaterium produced two or three stools ; much nausea, and some vomiting. Continue the medicines. Stupor increases. Repet. venesection ad ʒ xii.

14th. No urine. Apoplectic symptoms come on ; his eyes staring and fixed ; totally unconscious, and unable to take medicines ; apparently no pain, but he is bathed in profuse perspiration, which has a very strong, and somewhat urinous smell. Pulse 76, full and soft. He continued in this state till the next morning, when he died.

Dissection. Thirty hours after death, the body was opened by Mr. Russell, who attended the patient with me. The *right* kidney was much enlarged and inflamed. The tunica adiposa was more than usually loaded with fat, of a dark red color, and exhibited marks of considerable inflammation. The upper part of the ureter was blocked up with loose sabulous matter, a quantity of which was also found in the pelvis of the kidney, and in the infundibula, but not of a size much larger than the head of a large pin. The upper part of the ureter and the pelvis contained a small quantity of urine. The *left* kidney was almost entirely absorbed, and had evidently long since ceased to exercise its functions.

In the only infundibulum which remained, was impacted a small calculus, about the size of a pea. The ureter was pervious. The bladder was healthy, and contained a small quantity of urine. The urethra was in its natural state. The liver and other abdominal viscera were sound. We were not permitted to examine the head.

As I believe there are not many cases recorded, similar to those already communicated by you to the College of Physicians, I trust that this addition to them will not be unacceptable to the public.

I have the honor to be, Sir, your obedient, humble servant,
Birmingham, Sept. 1821.

GEO. EDW. MALE.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, FEBRUARY 29, 1832.

EARLY SETTLEMENT OF THE TERRITORIES OF THE NORTH.

AMONG the numerous instances of a judicious direction of national wealth and enterprise to the advancement of science, within a few years, not the least interesting to ourselves as Americans is the expedition fitted out by the Danish government to explore the east coast of Greenland. It may not be generally known to our readers, that there remain in the annals of Iceland particular and detailed accounts of a colony furnished by that island to the opposite coast of Greenland as early as the tenth century; of the formation of several settlements on both sides of Cape Farewell, whose names are given; of the conversion of the colony to Christianity; of the establishment of several monasteries; of the bishops successively sent thither; of the trade between that country and Norway; of the subsequent decline of the colony, and of a terrible pestilence called *the black death*, in the year 1348, which hastened its ruin. Such is an abstract of the history of Old Greenland, the location of which may be found variously laid down on the maps, or altogether omitted, according to the fancy or the credulity of the authors. New Greenland, established by the Danes, is of far more recent origin, and dates only from the early part of the last century. It is also confined entirely to the western part of the country, it having been found wholly impracticable to approach the eastern coast on account of the immense mountains of ice by which it is defended. This circumstance, and the ill success which attended the first attempt of the new settlers to discover any trace of the original colony, had already induced many to regard its history, however circumstantial, as wholly fabulous; when, about the middle of the last century, it was unexpectedly confirmed. At this time the Danish missionaries discovered on the coast the ruins of large stone houses, of churches built in the form of a cross, and fragments of broken bells; they also discovered that the inhabitants had preserved a distinct remembrance of these Norwegians, of the places where they dwelt, of their customs, the quarrels their ancestors had with them, and of the wars which ended in their destruction. Since that time, the attention of the Danish government has been occasionally directed to the investigation of the traces of the eastern settlement, and within the last two years an expedition was fitted out for this express purpose, under the command of M. Graah, captain of a frigate in the Danish navy. Under circumstances of great difficulty, the party succeeded in making their way as far as 65°, where their further progress was entirely prevented by the ice. From 60° to 65° M. Graah found only 500 or 600 inhabitants, and no direct evi-

dence could be obtained concerning the ancient colony. The only circumstance, and that a very remarkable one, which goes to sustain the historical records on this point, is, the physical character of the inhabitants themselves. It is well known that the Greenlander, as hitherto described, presents all the characteristics of the Esquimaux race: namely, short stature, not exceeding five feet; brown or reddish complexion, coal black hair, flattish nose, broad face, small hands and feet, and tendency to excessive corpulence. The men found by M. Graah possess none of these characteristics, but on the contrary are nearly allied in all respects to the Scandinavians of Europe. They are for the most part *above* the middle stature, having the European form of head and expression of countenance. Their persons are meagre, but nervous and finely formed, without any appearance of weakness, and they are more active and robust than the inhabitants of the west coast. The color of skin of the women and children is quite as clear as that of Europeans, and they have often brown hair, which is never seen in the other inhabitants of Greenland. Some of the men allow their moustachios to grow, others tattoo their arms, and all the women have their arms, hands, and chin tattooed, an operation which they execute themselves. Exposed to great physical suffering and very often to famine, they do not appear to live beyond the age of fifty; and the population seems to be decreasing. In their moral character they are very estimable; and the reported good nature of the husbands, submission of the wives, the obedience of the children, and the mutual affection and confidence of the whole people, make it difficult to realise that they are pagans. Polygamy is not common among them; they do not change their wives, and their morals appear to be irreproachable.

We have transferred the above account to our pages, because it appears to us, if correct, to present an important physiological fact. That a people separated during four hundred years from their mother country should during this long period have degenerated so little, as to be perfectly distinguished at once by their appearance from those around them, though exposed to the same physical agents, and obliged from circumstances to adopt their habits and customs, is sufficiently remarkable to be recorded. In other respects the observations made by Captain Graah are highly interesting. He found the extreme of cold in the winter much less than in the corresponding latitude on the western coast, the thermometer not falling below 17° of the centigrade scale or zero of Fahrenheit, and during the prevalence of a south wind, sometimes rising suddenly to 13 cent. or 56 Fahr. On the other hand, the summer he passed there was cold, the highest degree being about 60° Fahrenheit. The inhabitants obtained a precarious subsistence by fishing, but often suffered exceedingly from want. Their food is principally the dried flesh of the seal. Mention is also made of bears, hares, birds and salmon; but M. Graah says that even at the latitude of 63° 36' reindeer and hares are known only by name. There was more appearance

of vegetation than on the western coast, but the growth consisted mostly of sorrel and scurvy grass, with one or two kinds of flowers, and low bushes of willow and birch, of which the maximum growth is two feet. Captain Graah heard of inhabitants farther north, and had hopes of being able to gain some information concerning them.

CHURCH BURIAL.

WE have remarked, without the least surprise, some recent trouble about the cemetery under St. Paul's Church in this city. It is said that the air in the church is offensive, and this is supposed to arise from the animal decomposition going on beneath. The same has been remarked, in times past, in other churches that have tombs under them, and we would take occasion again to express our regret that liberty should ever have been given to bury the dead in such places. It is said that an examination of the vaults has been made by the intelligent superintendent of sepulchres, and no offensive odor has been there discovered; but is it not possible and even most probable that the same impure air which, in the cold cellar, should present nothing perceptibly offensive to the smell, would become very distinctly disagreeable when heated as it is in the body of the church. It would be regarded as a fortunate circumstance if this incident should lead to the abolishment of a practice alike useless and unphilosophical, which can lead to no good and may be productive of injury.

We intend not to enter into a discussion of the much-agitated question which is suggested by the remarks already made, for whatever may be the diversity of opinion among medical men respecting the *precise* influence of animal decomposition in the production of disease, no fact is better established than that a man will live longer and enjoy better health who is never exposed to the results of such decomposition, than if he were often brought into contact with them. We might go further, and say, that whilst the records of medical history present numerous instances of disease and death fairly attributable to animal decomposition, there are few *facts* that tend to invalidate this conclusion. The common argument is, that persons who spend their lives in the vicinity of butcheries, manufactories of adipocire, &c. enjoy good health notwithstanding their constant exposure to the impure air necessarily arising from such places. There are some circumstances that tend to explain this fact, so as to destroy the inference usually drawn from it. How is it, we would ask, that an epidemic or an infectious disease ever ceases to prevail in a place in which it has appeared? Why is it that Physicians, and still more particularly nurses, usually enjoy a remarkable immunity from these diseases? It is probably owing to the same law of the system, by which it may be gradually made to bear without injury doses of poisonous drugs, which, taken at the beginning, would be destructive to life. Ardent spirits, opium, laxative medicines, and many other articles; by their constant use the system becomes gradually insen-

sible to their peculiar stimulus, and at length quantities almost incredible may be swallowed without producing any apparent influence on the body. So does the system, by constant exposure to peculiar external influences, become insensible to them; and it is in this way we apprehend that nurses reap their immunity, and that the habitual dwellers in an atmosphere which under certain circumstances would poison others, are protected from these baneful effects. We may be made to bear and to enjoy intense cold when it comes upon us by degrees; but let it come at once, and we need not at this time attempt a detail of its consequences. Certain properties in the atmosphere which are productive of certain states of disease, as in epidemic diseases, act much more powerfully on the system at first than at any subsequent period of their prevalence. At their commencement, epidemics are, usually if not always, more severe and unmanageable than at any other time. As the system becomes gradually accustomed to the poison—if we may be pardoned the expression—which constitutes the peculiarity of the atmosphere at such periods, it becomes less sensible to its influence, and at length it ceases to be affected by it at all, and the epidemic disappears.

If these sentiments are correct, they diminish the force of the argument usually brought forward to prove the innocuousness of animal decomposition. They will show also why it should be deemed unwise to hazard exposure to the result of this change, under such circumstances as were alluded to in the commencement of these remarks.

Animate Contagion.—The first article in to-day's Journal is taken from a work just published in England, in defence of the doctrines there set forth. This work is from the pen of Dr. Adam Neale, and presents more numerous facts in support of the principles he has adopted, than one would suppose could possibly be collected from the records of medical science. Some of these facts we shall present, or an abstract of them, in future numbers, but would recommend the work to those who can get access to it, as one of unusual interest and ingenuity.

Temperature of the Human Body.—Some years ago, Dr. John Davy made a set of experiments with a view of ascertaining the changes, if any, which the temperature of the body undergoes in different parts of the globe; and the result was, that some, though but a slight elevation, occurs in warm climates, and a proportional decrease in cold countries. These experiments were lately repeated by M. Regnaud, of Paris, during a voyage in the eastern hemisphere; and as the thermometers used were compared by M. Arago with those of the Observatory in Paris, their accuracy cannot be questioned. Four sets of observations were made in the torrid zone, and three in temperate climates; while all were made on the same twelve individuals, robust and healthy men, fed, clothed, and lodged, in the same manner. In 10 deg. 4' north latitude, the air being at 79 deg. of Fahrenheit, the average temperature of all the twelve was $99\frac{1}{3}$ degrees; in 36 deg. 10' south latitude, the atmosphere being $62\frac{1}{4}$ deg, the average temperature of the men was $98\frac{3}{4}$ degrees; under the line, and with an atmospheric heat of

86 deg., the animal temperature was 100 degrees. In latitude 7 deg. 1' south, the air being at 86 deg., the body was $98\frac{1}{2}$ degrees; and, again, the air being at $62\frac{1}{2}$ deg., the body was at 99 degrees, and the atmosphere rising to 79 deg., the body rose to $99\frac{1}{2}$ deg. Thus the atmospheric range was from $53\frac{1}{2}$ deg. to 86 deg., which produced a variation in the animal heat of only one degree and a half.

On the State of Chlorides, Iodides, &c. in Solution.—Carlo Matteucci decomposed the chlorides and iodides, by means of the pile, with the expectation of being able to deduce the nature of these compounds when dissolved in water. If it were possible to decompose these combinations by means of electric currents, incapable of decomposing water, one might then justly conclude that their composition was not changed by solution in that liquid. He, therefore, took a pile composed of two elements only, charged with water rendered slightly saline, and which had no power of decomposing water even a little acidulated. The platina conductors were then dipped in a solution of muriate of copper, and after some time, the negative conductor was covered with metallic copper, whilst the positive conductor evolved bubbles of gas. Having replaced the latter conductor by one of silver, it soon became covered with a yellow film gradually changing to violet, which was considered as chloride of silver. The experiment was repeated with the iodides of zinc and iron; the platina poles had scarcely touched the solutions before the iodine, with its distinctive color, appeared at the positive pole, and the metals were reduced, and deposited upon the negative pole.

“After these experiments, it appears,” says Mr. Matteucci, “that we may affirm with certainty, that these combinations, even when dissolved in water, do not change in their nature, and are not converted, as is often imagined, into muriates, hydriodates, &c. of the oxides of the metals present.—*Jour. of Roy. Inst.*”

Smallpox.—During the last eighteen months, M. Louis has had the opportunity of examining the bodies of fifteen patients who died of smallpox. In eleven of these he found in the bronchia either a false membrane, or a collection of pus or blood. In one-third of the cases there was a morbid development of the glands of Brunner forming exanthematous pustules. In no case were the elliptical plates altered.—*Gazette Médicale.*

Cysts in the Heart.—M. Flandin exhibited to the Anatomical Society of Paris, at their meeting on the 6th of July last, a heart, in the left ventricle of which were cysts containing clots of blood, and the centre of these clots was filled with pus.—*Revue Méd. August, 1831.*

Pustules in the Intestines caused by the internal Administration of Tartar Emetic.—M. Guerard says that he has met with, in two persons treated by large doses of tartar emetic, pustules similar to those produced on the skin by the application to it of that article. These pustules occupied a considerable portion of the intestinal canal; there existed besides no sign of dothineritis. The stomach was healthy.—*Ibid.*

Co-existence of Mumps with Leucorrhœal Discharge.—Mr. John Dunn relates in the *North of England Medical and Surgical Journal*, for June last, four cases in which inflammation of the vagina and purulent discharge

followed mumps. The first case occurred in a child two and a half years old, the second in a child of four years of age, and the other two were servants. The children neither slept with each other or with either of the servants.

Partial Aneurism of the Heart.—M. Vidal has exhibited to the Anatomical Society of Paris, the heart of an old woman, with a small tumor near the apex of the right ventricle. This tumor communicated with the cavity of the ventricle by a small orifice: it is lined with an organized membrane continuous with that of the heart. It contained recently coagulated blood. The disease was not suspected. The patient died with what are termed asthmatic symptoms.—*Journal Universel et Hebdom.*

Births in Prussia.—During the four years, 1826, 7, 8, and 9, the number of births in Prussia was 2,011,288; being 40,081 births for every million of inhabitants. The greater number of births occurred in the least densely inhabited districts. Of the whole number of births, 988,507 were single, 11,346 twins, 144 triplets, and 3 quadruplets.—*Memorial Encyclopedique, for August, 1831, from the Berlin State Gazette.*

Bowdoin College.—We understand that the Legislature of the State of Maine has abolished the office of President of Bowdoin College, and instituted that of Chancellor in its stead,—the office in all cases to be held by a layman. They have also provided that vacancies in the Board of Overseers shall be supplied by appointments by the Governor and Council of the State, and that not more than one-fifth of this Board shall consist of clergymen.

Whole number of deaths in Boston for the week ending February 24, 34. Males, 11—Females, 23.

Of consumption, 7—brain fever, 1—marasmus, 1—lung fever, 5—old age, 4—scarlet fever, 4—measles, 2—delirium tremens, 1—influenza, 1—infantile, 2—dropsy in the head, 1—spasms, 1.

ENGLISH BOOKS.

JUST received, by CARTER & HENDEE, A Dictionary of Chemistry and Mineralogy, with their applications. By ANDREW URE, M.D. Fourth Edition, with Improvements.

A Manual of Analytical Chemistry. By HENRY ROSE. Translated from the German, by JOHN GRIFFIN.

Richerand's Elements of Physiology, fourth edition. With Notes and Appendix, by J. COPELAND, M.D. Second Edition.

A New Supplement to the Pharmacopœias of London, Edinburgh, Dublin and Paris, forming a complete Dispensatory and Conspectus; including the New French Medicines, and Poisons, with symptoms, treatment, and tests, &c. &c. By J. RENNIE, A.M. A.L.L. Second Edition, revised and enlarged.

Popular Lectures on the Study of Natural History and the Sciences, Vegetable Physiology, Zoology, the Animal and Vegetable Poisons, and on the Human Faculties, mental and corporeal—as delivered before the Isle of Wight Philosophical Society. By WILLIAM LEMPRIERE, M.D. Second Edition, to which have been added two Lectures on the Mammiferous Animals, as since read to the above Society. Jan. 17.

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WEDNESDAY, MARCH 7, 1832.

[NO. 4.]

CHURCH BURIAL.

Curious Instances of Pestiferous Insects.

THE Rev. Dr. Render, in his "Tour through Germany," published in London in 1801, observes at page 65—About fifteen years ago, an excellent law was passed and observed with great punctuality at Frankfort, as well as in all other parts of the empire of which the emperor Joseph II. was then legislator, and which deserves to be imitated in foreign countries. This law prohibits the burying of dead bodies in any chapel or church whatever. Neither rank nor opulence can obtain permission to evade it, as in the enforcement of it no respect is paid to persons.

"It is horrid," said the Austrian emperor, "that a place of worship, a temple of the Supreme Being, should be converted into a pest-house for living creatures. A person who upon his death bed makes it a condition of his will to be buried in a church or chapel, acts like a madman; he ought to set his fellow-creatures a good example, and not to do all in his power to destroy their constitutions, by exposing them to the effluvia arising from a corpse in a state of putrefaction."

"How pernicious the burying in churches is to a congregation, *particularly in Protestant churches which are not fumigated* as those of the Roman Catholics are, before and during the service, will appear from the following serious instance of the consequences resulting from it. My readers will, I hope, permit me to suppress the name of the clergyman, and the place where this event took place, as I am very sorry to say, the reverend gentleman, who was much esteemed for his integrity, and well known by his literary genius, proceeded rather too far in the matter. The case was briefly this:—

"In the month of July, 17**, a very corpulent lady died at * * * in ****. Before her death she begged, as a particular favor, to be buried in the parochial church. She had died on the Wednesday, and on the following Saturday was buried according to her desire. The next day the clergyman preached her funeral sermon; the weather was uncommonly hot, and it ought to be observed, that for several months preceding her death, a great drought had prevailed, not a drop of rain had fallen, and consequently it was an uncommonly sultry season. The succeeding Sunday, a week after the lady had been buried, the Protestant clergyman had a very full congregation, upwards of 900 persons attending, that

being the day for administering the holy sacrament. The weather still continuing very hot, many were obliged, during the service, to walk out for a time, to avoid fainting, whilst some had actually fainted away. It is the custom in Germany, that when people wish to receive the sacrament, they neither eat nor drink (that day) till the ceremony is entirely over.

“The worthy clergyman preached about one hour and a quarter; he then consecrated the bread and wine, which ought to remain uncovered during the ceremony. There were about 180 communicants. A quarter of an hour after the ceremony, before they had quitted the church, more than sixty of them were taken ill, several died in the most violent agonies; others of a more vigorous constitution survived by the help of medical assistance: a most violent consternation prevailed through the whole congregation and town. It was concluded that the wine had been poisoned, and so it was generally believed. The sacristan, and several others belonging to the vestry, were immediately arrested and put in irons.

“The clergyman, on the succeeding Sunday, preached a great deal of enthusiasm, and pointed out to his congregation several others concerned in the plot. This enthusiastic sermon was printed.

“The persons accused underwent very great hardships: during the space of a week they were confined in a dungeon, and some of them even put to the torture, but they still persisted in their innocence.

“On the Sunday following, the magistrate ordered that a chalice of wine, uncovered, should be placed for the space of an hour upon the altar, which time had scarcely elapsed, when they beheld the wine filled with myriads of insects; and by tracing whence they came, it was at length perceived, by the rays of the sun, that they issued from the grave of the lady who had been buried the preceding fortnight. The people not belonging to the vestry were dismissed, and four men employed to open the grave and the coffin: in doing which, *two of them dropped down and expired upon the spot!* and the other two were only saved by the utmost exertion of medical talents. It is beyond the power of words to describe the horrid sight of the corpse when the coffin was opened. The whole was an entire mass of putrefaction, and it was now clearly demonstrated that the numerous insects, both large and small, together with the effluvia which had issued from the body, had caused this pestilential infection, which was a week before attributed to poison. On this discovery, the persons accused were of course instantly liberated, and every atonement made by the clergyman and magistrate for their misguided conduct.” p. 72.

See a pamphlet published at Leipsic, in 1770, entitled *Pernicious consequences of burying in churches. Schadlicke Folgen die Toden in Kirchen zu begraben.*

In the summer of 1679, a very remarkable disease broke out in the little town of Czierck, in Poland, and its environs, caused by some unknown winged insects; the stings of which wounded mortally both men and animals. Thirty-five persons and a great number both of horses and horned cattle perished in this district only. These insects suddenly alighted upon the uncovered parts of the body, such as the face, neck, and hands, and stung severely. Speedily hard tumors arose, and if

within the first three hours these were not removed, either by means of the actual cautery, or knife, all other means proved unavailing, and the persons stung died a few days afterwards.

These insects had four wings, and six feet, and a long stylet issued from behind, enclosed in a sheath, which opened longitudinally in two divisions. Some were marked on the back with yellow rings, but others were entirely black, and the latter were the most poisonous. They were so very tenacious of life, that it was difficult to kill them. Fortunately they disappeared during a north wind. It was believed that they proceeded from some pestilential carcase. (O Zanam Hist. Med. des Mal. Epidem. Tom. 5. 272, also Ephem. Natur. Curios. Ann. ix. Obs. 184.)

In the first volume of Dr. Southey's *Omniana*, p. 75, is the following passage, entitled Tomb Flies :—

When the French, in their war with Pedro of Aragon, took Gerona, a swarm of white flies is said to have proceeded from the body of *St. Narcis*, in the church of *St. Phelin*, (I copy, says Dr. S., the names as they stand in the Catalan author Pere Tomich. ff. 39,) which stung the French, and occasioned such a mortality, that they evacuated the city. This is so extraordinary a miracle, that there is probably some truth in it, because miracle-mongers have never the least invention, and because a curious fact in confirmation of it is to be found in the *Monthly Magazine* for December, 1805. "In preparing for the foundation of the new church at Lewes, it became necessary to disturb the mouldering bones of the long defunct, and in the prosecution of that unavoidable business, a leaden coffin was taken up, which on being opened, exhibited a complete skeleton of a body that had been interred about sixty years, whose leg and thigh bones, to the utter astonishment of all present, were covered with myriads of flies (of a species perhaps totally unknown to the naturalist) as active and strong on the wing as gnats flying in the air, on the finest evening in summer. The wings of this nondescript were white, and for distinction's sake the spectators gave it the name of the coffin fly. The lead was perfectly sound, and presented not the least chink or crevice for the admission of air. The moisture of the flesh had not left the bones, and the fallen beard lay on the under jaw."

In the second volume of his *Omniana*, Dr. Southey says there is a curious passage in the adventures of Robert Drury. An insect like a cow-tick, called *poropongee*, is found in that part of Madagascar which the Virzimbeers possess, and in no other part of the country. Its bite is said to occasion an illness which lasts six or eight weeks, *but to which no person is subject a second time!* and the Virzimbeers took care not to destroy this insect, because they found it a good protection against their neighbors who used to invade them. Vol. 2, p. 262.

There is a fact stated in Dr. Dover's *Ancient Physician's Legacy*, which although not quite similar to the foregoing, yet as it serves as an illustration, seems to be well deserving of our attention, and shall therefore be quoted. Dover, it may be here stated, was an extraordinary character, and united in his own person the very incongruous professions of physic and buccaneering. He says, "when I took by storm the two cities of Guayaquil, under the line in the south seas, it happened that,

not long before, the plague had raged amongst them. For our better security, therefore, and the keeping our people together, *we lay in their churches*, and likewise brought thither the plunder of the cities : ” “ *we were very much annoyed with the smell of the dead bodies*. These bodies could hardly be said to be buried : for the Spaniards abroad use *no coffins*, but throw several dead bodies one upon another with only a drawboard over them ; so that it is no wonder that we caught the infection.”

“ In a few days after we went on board, one of the surgeons came to acquaint me, that several of my men were taken after a violent manner, with that languor of spirits that they were not able to move. In less than forty-eight hours we had in our several ships 180 men in this miserable condition,” &c. &c.

DISEASED SPINE.

Case of Diseased Spine. By THOMAS SEWALL, M.D., Professor of Anatomy and Physiology in the Columbian College, D. C.

THE following case of spinal affection occurred in the infant son of M. E. Hersant, Esq. Consul of France to the United States, a child equally remarkable for the premature development of his mind, the native stamina of his physical constitution, and the patience with which he sustained the extreme sufferings occasioned by a complicated train of morbid affections.

The case did not come under my care until a late period of the disease ; I therefore avail myself of the notes which were made by Madam Hersant, and which she has kindly put into my hands for the benefit of the public. I am happy to find her journal of the case so full and circumstantial as to furnish every fact at all material in giving a faithful detail of its history.

Alexander, the little patient in question, was born in March, 1827, and was a healthy, well-formed child. At the age of two weeks, he was severely affected with the thrush, from the consequences of which he did not recover for nearly nine months, but upon the approach of the first winter his health returned and he became vigorous and robust. In July following he contracted a catarrhal affection, which left him with a febrile habit, that continued till late in the autumn ; and the winter in 1829, found him a great invalid, affected with sleepiness, flushing, fever, and diarrhœa, and this state continued till he was removed to Georgetown in September. Soon after this period, he was seized with occasional turns of vomiting, accompanied with a febrile habit, a dry cough and with indigestion. About the same time also, it was remarked, that he had acquired the habit of raising his body erect, or of throwing it backwards, as if to relieve some uneasy sensation ; and that he was losing in some degree the power and activity of his lower extremities, was evinced more especially by stumbling as he walked ; but late in the autumn, his general appearance was improved, and he enjoyed comparatively good health for two or three months. Early in February, 1830, it was observed for the first time, that he manifested uneasiness from the exercise of riding in a carriage, and that he could not endure being jolted upon the knee, or lifted by the arms. On making an examination to ascertain

whether there was not some strain or dislocation which would explain the embarrassment under which he labored, a small protuberance was discovered over the spine. About this time a great irritation of the bladder occurred, accompanied with pain, a frequent desire to void urine, and a shuddering when it was discharged; this affection increased in its severity to the close of life. About the same time the abdomen became tumid and tense, and his sufferings were augmented by an attack of the measles, then epidemic in the city, which left him with increased debility, cough, and fever.

In March, 1830, I was called upon to give my opinion with respect to the nature of the tumor upon the back. Upon examination, I found the spinous process of the superior lumbar vertebra slightly projecting, with a small but obvious curvature of the spine. There was tenderness from pressure over the projecting part in its neighborhood, and his motions seemed to be restrained, feeble, and tottering. There were also evident marks of hectic irritation. The nature of the case was too obvious to be mistaken, and I did not hesitate to pronounce it an affection of the spine, and one which would result in a caries of the vertebræ, and in an extensive deformity, if not in death, unless arrested in its progress.

With respect to the treatment, it would be both tedious and unsatisfactory to trace it through the various changes of a case so protracted and complicated. I would only observe in reference to the spinal disease, that issues were introduced on each side of the affected vertebra, in May, 1830, and other topical and general remedies were used. Still the disease advanced with a slow, but steady progress, evinced by the increase of fever, loss of appetite and strength, emaciation, irregular bowels, paroxysms of spasmodic pain, enlargement of the abdomen, and increased curvature of the spine.

In October, 1830, the little patient was taken to Philadelphia, and placed under the care of Dr. John K. Mitchell, a gentleman to whom our country is largely indebted for his extensive investigations, and successful method of treating this most formidable disease.

When the patient was first placed under Dr. Mitchell's care, he was suffering under the pressure of a severe hectic, accompanied with a tumid abdomen, and diarrhœa, of which the discharges were purulent. The pus appeared like that which usually escapes from strumous cavities, and was supposed to come from an abscess connected with the carious vertebra. His appetite was feeble, his respiration hurried and irregular, his skin unequally active, his muscular strength almost entirely gone, and his motions even on the bed to which his debility confined him, were painful. From a belief that issues are often injurious in exciting and keeping up hectic irritation, an opinion, says Dr. Mitchell, derived from long observation, they were closed as soon as possible. To correct the irritated state of the intestinal action, a small blue mass pill was given every evening, and the diet was rendered as simple as possible. But as no visible improvement followed these measures, the little patient was subjected to the use of the spine cart, a remedy which has given signal relief in many cases of painful caries of the spine, detailed in the communications of Dr. M. already before the public. Its application was quite as beneficial as anticipated. To use the language of the observant and in-

telligent mother, the swelling of the abdomen subsided, the pains left him, the fever abated, and the discharges became in other respects healthy, although the purulency was not materially diminished. These changes took place in three days after the application of the spine cart. At the end of six weeks, his whole appearance was so much improved as to afford a rational hope that the patient might finally attain health and a solid spine. When he arrived in Philadelphia, it was necessary to avoid the slightest jolt; but before his departure for Washington, he rode about the streets of Philadelphia, without making any complaint. The weather on his journey homewards was both wet and stormy, and the necessary exposure brought on a severe catarrh, with fever and pain, attended with a loss of appetite, and a diminution of flesh and strength. But in the beginning of January, 1831, these symptoms abated, and he began to recover his appetite and flesh, and his bowels became more regular, although the passages were still charged with pus. From the time he returned from Philadelphia, at which period he first became my patient, the spine cart was applied from three to five hours daily for several weeks, and with evident benefit; but in the early part of March, he was again affected with cold, which brought on a return of all his unfavorable symptoms with increased violence, and from this time the use of the cart was necessarily abandoned. The fever returned, accompanied with loss of appetite, thirst, fatigue of the lower extremities, great debility and sleepiness. The discharge of pus from the bowels became more copious; the urine was also rendered turbid by its presence, and deposited large quantities of matter when cold. He continued to linger, becoming more and more exhausted, till the 12th of July, when he died in a state of extreme emaciation.

Post-Mortem Examination.—Twenty-four hours after death, I made a careful examination of the body, in presence of Drs. Washington and Bohnen, and discovered the following appearances:—On laying open the abdomen, the liver, spleen, and small intestines alone, were found in a healthy condition. The large intestines, in their whole extent, were thickened and changed in their organic structure, being contracted in some parts, and enlarged in others; with their different convolutions, where they came in contact, firmly adhering. The whole of the mesentery was thickened, and its glands enlarged to the size of grapes. The pancreas was also slightly enlarged and diseased in its structure. The left kidney was in a healthy state, but the right was enlarged to four times its natural size, with its ureter irregularly dilated to three-fourths of an inch in diameter, its coats the fourth of an inch in thickness, and of a cartilaginous thickness. The bladder was diminished in its capacity, and distended with urine and pus; its coats were thickened, hard, and elastic, and its mucous surface studded with small, white tubercles. Behind the peritoneum, and in the direction of the right psoas muscle, we found a mass of caseous matter, extending from the diseased vertebra to the right sacro-iliac junction. The large intestines contained a considerable quantity of pus, and a communication was found to exist between the diseased vertebra and the arch of the colon, where it crosses the spine, by which the matter made its way into the cavity of the intestines. On removing the intestines, a greater part of the bodies of the

two superior lumbar vertebræ, with the intervening cartilage, were found destroyed by the disease, and the vacuity created by the caries filled with pus.

Observations.—In reviewing the foregoing case, the following observations seem naturally to present themselves to the mind.

1st. The importance of an early attention to the premonitory diagnostic symptoms of spinal disease, in order that the appropriate remedies may be applied before caries or curvature take place, for it is in this early stage only, that medical treatment can be relied on with confidence. Whenever, therefore, fever becomes chronic, or is obstinate, without the detection of an adequate cause, the vertebræ should be carefully examined by pressure. If no tenderness be discoverable, we may safely infer the absence of spinal irritation, unless the frequent and soothing motions of the spine, the often sought recumbent posture, and the shuffling gait, determine the application of remedies to the spine, even though no tenderness be discovered by the pressure.

2d. The immediate and complete relief from pain and other unfavorable symptoms by the suspension in a spine cart, while a recumbent posture did not abate one morbid symptom, shows that the state of entire rest and horizontal position, so strongly insisted on by the highest medical authority, is not entitled to unqualified approbation, and that these two apparently opposite modes of cure demand a fuller experimental investigation.

3d. That although a single case cannot be quoted as adequate testimony in favor or against any particular mode of treatment, yet the unabating progress of the disease while under the application of issues, a remedy also established by long usage, and advocated by high authority, while an arrest of the disease was effected by a remedy less painful, and better adapted to the undisciplined years and tender condition of the sufferer, should cause the profession to pause and to reconsider well the propriety of their application.—*Amer. Journ. Med. Sci.*

CHOLERA.

Remarks on Cholera. Communicated for the Boston Medical and Surgical Journal. By MOORE HOIT, M.D.

“What can we reason, but from what we know?”

IN all researches after-truth, common sense gives observation the precedence to theory; but when the importance of the object to be attained is only equaled by the difficulty of its discovery, and observation fails to penetrate the thick darkness in which it is shrouded, theory may certainly be permitted to offer the aid of its humble services in the investigation.

It is now fifteen years since the Cholera has commanded the anxious attention of some of the first medical talent in the world; but what has been done to arrest its progress, or disarm it of its terrors? Absolutely nothing; it still advances, in defiance of the feeble attempts hitherto made to elude its grasp or struggle against its embrace.

In such cases, mankind, in their consternation, are always prone to

confound things ; and in this instance, appalled by the great mortality of a pestilence so unlike anything they have hitherto known, take for granted, that, *in its nature*, it is a different *kind* of evil from any with which they have before contended, and which must either be submitted to with sullen patience, or opposed by means as yet unknown. But let us make the inquiry whether this be a *new species of morbid action*, one *peculiar to itself*, or whether it be *similar* to the morbid actions that obtain in other cases, in the same structures, and *differing* from them *only in degree*. If the characteristic features of this disease, either separately, or in the aggregate, find no parallel in pathology, then, but not till then, let us loose from our moorings, throw overboard as useless those charts and observations which have cost us so much time and labor, and launch at once upon the broad ocean of conjecture, without even the dim twinkling of a star to steer by.

We have for a long time in this country been familiar with a disease called cholera, produced, as we believe, chiefly by atmospheric influence, appearing only in the summer, and generally if not always sporadic. Although the Indian cholera appears as an epidemic, and that in winter as well as summer, it does not necessarily imply a difference in the nature of the disease, but only in the manner of its production. Again, the Indian cholera is commonly fatal, and often so in a few hours ; the American not necessarily fatal, and seldom so under several days. Now so far, the difference consists in the epidemic and fatal character attached to the one, and not to the other,—discrepancies which occur in other diseases, which we do not on that account consider, or treat, as differing in the nature of their morbid action. We often find our cholera apparently produced by different exciting causes, and sometimes when the atmospheric or predisposing cause is not supposed to exist ; still, as all these causes, when brought to bear upon the same structure, produce the same ultimate effect, we do not think ourselves justified in giving to each of these a new name, or instituting in each a new treatment. It may, however, be said, that here is not only a different cause, but in fact a totally different disease. As it regards the nature of the cause of Indian or American cholera, or indeed of almost any other disease, the less physicians pretend to know of the subject, the better will their pretensions harmonise with their knowledge. That diseases, when epidemic, are more *severe* than when sporadic, is a point well established ; but that therefore they differ in the *kind* or *mode* of *morbid action*, I deny altogether.

The influenza, which we have so lately witnessed, will serve to illustrate my meaning. In this instance it will readily be conceded, that we have a disease differing in no respect, except *in degree*, and in the manner of its production, from the common catarrhal affection, familiar to every man, under the name of “ a cold.” The same parts are affected, the same symptoms are exhibited ; but while the one is safely left to the efforts of nature, the other *may* require prompt and active medication.

I make these remarks with a strict reference to practical results ; for if this point can be established, that we have in the epidemic cholera *no new mode of morbid action*, then is this frightful pestilence deprived of half its terrors, for I believe it must be admitted that for almost every

known variety of morbid action, we have the appropriate remedy. That we are often baffled in the application of the remedy, is no objection to the position. The same morbid action produces different results in different textures, and in some of these, disease is death. In such cases the physician rightly considers himself as a mere spectator, and although he may regret his inefficiency, he can no more reproach his art with it, than of its failure to confer immortality. Perhaps we may not be able, in some instances, to recognise the *kind* of disease, in others, its seat : in such, if we act either boldly or feebly, guided alone by conjecture, let the charge of failure rest where it plainly belongs. But there can be little doubt respecting the most important location of the cholera ; it evidently chooses for its chief scene of action, the stomach—a field which is occupied every day, for sport or for war—an arena where the “*Sampsons of medicine*” have often contended with the Philistines of disease.

The prominent features of the Indian cholera, as far as my information extends, are,—pain in the epigastrium, indicative of spasm in the stomach and collatitious organs, sinking of the pulse, coldness of the surface, vomiting of a fluid not bilious, spasms of the voluntary muscles, and general prostration ; death more commonly occurring in a *prostrated*, than in an *exhausted* state of the system. Now we have precisely the same state of things in common cholera ; with this exception, that as the symptoms in the latter are less intense, life is seldom extinguished in the first instance, and when death does ensue, it is in an exhausted state of the system, the consequence of a protracted continuance of the disease.

It has been remarked, apparently by those who wish to establish the doctrine of a new kind of disease, that in the epidemic cholera the vomiting, which in common cholera is the most important symptom, is a thing of minor consequence. Can we regard a constant vomition which rejects nothing but a glairy, rice-water-like fluid, a thing of little moment, when we reflect that it is almost impossible to excite the same act in other cases by means so gentle as not to occasion the evacuation of bile ?—Surely this shows an almost unparalleled degree of disease of the chylopoietic viscera, and the vomiting must be, of necessity, a most important circumstance.

In common cholera the obstructions to the flow of bile are so slight as to be easily overcome by the efforts of nature ; but in the other it appears those efforts are unavailing. With the derivation of words in such cases we have nothing to do ; universal practice in modern times, sanctions the application of the word cholera, to the associate acts of vomiting and purging, whether bile be present or absent. Upon the whole, I am satisfied by the comparison, that no greater difference exists between the phenomena exhibited by these two diseases, than between the common and the epidemic “*cold*.” If then the American and the Indian cholera exhibit the same morbid action, only differing in degree, why should we not expect similar results from the application of the same principles of practice, proportioning the *energy* of the *means* which those principles dictate, to the *increased energy* of the diseased action.

Now the American cholera *has been cured*, and *can be cured*, every day during the season of its prevalence. We cure the spasm and pain and vomiting, and cause a determination to the surface, by those reme-

dies which for *ages* have been known to be capable of effecting these objects ; the chief of which is opium. The curative effect of opium is well seconded by large doses of calomel, by alcohol, and the external application of heat and other stimulants.

There is one point in the treatment of diseases, which appears to me to be too much overlooked, especially by writers, and that is, the importance of making an impression upon the system, that shall be in degree more intense than the diseased impression, without particular regard being had to the kind of impression, or the agent by which it is produced. Counter-irritation would express the idea, were there not already attached to this phrase, by the profession, a practical definition, which falls far short of that I would give it. The apparently different modes of curing intermittents will illustrate my meaning. Here we find that the larger the quantity of bark or arsenic, that can be exhibited with safety in a given time, the more sure we are of producing the desired result. Divesting ourselves of the absurd notion, that these remedies, *thus exhibited*, act by a tonic property, we can easily account for the cures ascribed to the sudden immersion in the cold bath ; to emetics ; to electricity ; to sinapisms to the extremities ; to large doses of alcoholics, and to mental impressions. It appears to me that the application of this principle to the treatment of cholera is strongly demanded, and while we may perhaps rely upon other remedies for the ultimate cure, we should endeavor to make some kind of impression upon the system, which, by being more intense than the morbid impression, will at least retard its progress in accordance with a well known law of the system, till more appropriate remedies shall have time to produce their peculiar effect. This perhaps can be accomplished by the internal and external use of the acrid, pain-giving stimulants ; such as the essential oils, undiluted brandy internally, and the actual cautery and similar means externally.*

These views appear to me highly important, inasmuch as they are founded on the acknowledged principles of therapeutics, and so far at least preferable to the miserable empiricism which prescribes *cajeput oil* and *poultices of hemp seed* as specifics in cholera. It is very evident that a disease possessed of such concentrated virulence as epidemic cholera is represented to be, must be combated with heavier and sharper weapons than one of less malignity.

If then in our cholera an hundred drops of laudanum are found necessary to arrest the disease, it is unphilosophical to expect that thirty will do as much in the epidemic, and it is certainly ungenerous to lay the blame of failure on the *innocent* remedy, when it ought to attach to the fear-stricken heart and trembling hand of the prescriber. "In the extract from "Advice to families, for the prevention and cure of Cholera," signed by Sir Henry Hallford, president of the English Board of Health,

* Since writing the above I have seen the statement made by Dr. Barry of the success of Dr. Lange's practice with the actual cautery applied to the spine. It is evident to those who are familiar with the uncertainty of medical opinions, that, although the doctor may be right in his views of the proximate cause (as he evidently considers it) of cholera, yet possibly he may be wrong. Should the theory not prove true, the really excellent remedy which is based upon it must fall ; but on the other hand, if the remedy is used in conformity with the law of impressions (for the philosophy of which I believe we are indebted to Hunter), it must be tried on its own merits.

published in No. 22, Vol. 5, of this Journal, it is recommended "in severe cases" to administer from twenty to forty drops of laudanum. Now should a "severe case" of American cholera be left to such a prescription, and the patient recover, it would certainly be ascribed to the tender mercies of Providence, without regard being had to the agency of the physician. Severe cases of *American cholera* require from 60 to 100 or 120 drops of laudanum, and not unfrequently that to be repeated; but severe cases of Indian are to be put off with 20!! There is scarcely an intelligent matron, in this country, who would not laugh at Sir Henry's prescription in "severe cases."

Tartrate of antimony is another remedy, the established character of which, promises much in Indian cholera. As far as relaxation of spasm, and determination to the surface are desirable, it harmonizes admirably with opium, as for example in the treatment of colic. In our cholera it is inadmissible in *severe* cases, by reason of the exhaustion produced by the disease, and in the *mild* cases it is not wanted; but if the *supposition* be correct, that in the severe cases of the Indian disease, the patient dies, not from exhaustion, but prostration, the objection does not hold. Perhaps it will be objected, that to produce vomiting when it is already an alarming symptom, would be not only wrong in principle, but absolutely rash in practice. Reflection may convince us that this is not in fact so much opposed to principle as it might at first thought appear. As far as analogy can justify anything, it will this practice. Take, for instance, dysentery; it would sound oddly in the ears of American physicians at the present day to object to the administration of twenty or thirty grains of calomel, because purging is one of the most remarkable and obnoxious features of this disease.

In most of our remedial attempts on the human system, our object is to substitute an artificial or remedial action in the place of the morbid one, though in appearance closely resembling it, which from its nature will gradually give possession to the healthy action. On no other ground than this, could the practice which was for a long time so general of administering small doses of mercurials in fever, be for a moment justified—by no other reasons can the efficiency of the same remedy in the venereal disease be accounted for. With regard to the stomach, we find not uncommonly in ordinary cases of sickness of that organ, severe vomiting to ensue, and that repeatedly, without the relief of the symptom that an emetic at once affords. Finally, ought we to draw no indications from these rice-water-like vomitings?—may not we consider these agonizing efforts of suffering nature, as inefficient attempts by the stomach to obtain for the chylopoietic viscera their accustomed stimulus of bile?—and are we not borne out in this hypothesis by the acknowledged fact, that where bilious vomitings do occur in cholera, the patient generally recovers? Thus, whether it be to relax spasm of the biliary ducts, or of some other of the chylopoietic viscera, or whether to determine to the surface, or whether to produce a remedial impression simply—may not one or all these desiderata be obtained by a full vomiting dose of emetic tartar? To my mind this promises much more than "*Transfusion*," or the "*Injection into the blood of oxygenating salts*."

My object in making these remarks has not been to advance any pre-

cise rules of treatment, but rather, by the mention of a few remedies as they occurred to my mind, to endeavor to call the attention of physicians from the worse than childish search for specifics, to the fixed principles of their science. Those principles must be valuable, for I cannot believe that all our anxious labor in the investigation of them has been in vain, or for the purpose of acquiring the "form" of wisdom, "without the power." What do we so painfully learn—what so gravely teach—if all our knowledge and all our precepts are to be blown from us by the first wind that bears on its wings an unusual form of disease?

New York, February 27, 1832.

BOSTON MEDICAL AND SURGICAL JOURNAL.

B O S T O N , M A R C H 7 , 1 8 3 2 .

Researches principally relative to the Morbid and Curative Effects of Loss of Blood. By MARSHALL HALL, M.D., F.R.S.E. &c. &c.

WE have offered from time to time short extracts from Dr. Marshall Hall's work upon the effects of bloodletting. This is evidently the production of a practical man, who has witnessed, at the bed-side, the phenomena which he describes; and the conclusions seem to be formed upon a careful and patient examination of facts. Although our extracts from and notices of the work have doubtless been treasured up by the reader, yet the practical importance of the subject is such as will perhaps warrant our giving a sketch of the leading principles it maintains and doctrines which it inculcates. Among them are the following:—

1. Exhaustion from loss of blood may be followed either by deficient or excessive reaction. In the latter case the symptoms are those of cerebral excitement; as violent throbbing headache, confusion and giddiness with intolerance of light and sound. This effect occurs generally in the young and robust. In infants and in feeble persons reaction from loss of blood is apt to be defective. Either of these states may be followed by sinking. The symptoms which characterize this last state are those of irritability of the nervous system; as intolerance of light and noise, violent throbbing of the carotids, &c. At a later period of exhaustion there is labor in respiration, stupor, snoring, &c. A general effect of exhaustion from loss of blood is rapidity of the pulse.

2. It seems probable that a certain balance of the circulation of the brain is necessary for the healthy condition of its functions; that these are equally impeded by the interruption which takes place in apoplexy, and by the diminished impulse which occurs in an opposite state. Syncope itself is preceded by giddiness, tinnitus aurium, and impaired vision; and accompanied by blindness, dilated pupil, perfect insensibility; and frequently

passes into convulsion. It differs then from apoplexy, chiefly in the state of the general circulation, the symptoms accompanying the two being remarkably similar, and the effect upon the sensorial powers almost precisely the same.

3. Each successive bloodletting is attended with increased risk. There is considerable danger when the reaction is strong, still greater when it is feeble. A large bloodletting in the last case may be followed by sudden death. There is great danger when fainting has been several times induced, and when there is the least tendency to want air.

4. The power of the system to resist the loss of blood varies according to many circumstances; but, *cæteris paribus*, according to the presence or absence of disease; and when present, according to its nature and seat. In some diseases a greater loss of blood is borne than in health, in others less. According to this circumstance, a scale of diseases might be formed, commencing with cerebral congestion, and going through serous and parenchymatous inflammation, and acute anasarca, to the state of health. Below this would be arranged fever, the effects of intestinal irritation, some cases of delirium, reaction from loss of blood, and disorders of the class of hysteria, dyspepsia, chlorosis, and cholera.

5. The quantity of blood which flows when a patient is placed upright and bled *ad deliquium*, seems accurately proportioned to the exigencies of the case. In inflammation much blood should be taken; and much will flow before deliquium is induced: in irritation, little blood should be drawn, and there is early syncope from bleeding. In this way the quantity is also suited to the powers of the system. For this reason, whenever full bleeding is to be practised, the patient should be placed perfectly erect in a chair or in bed.

6. The stimulus of inflammation both renders it more difficult to induce syncope, and protects the system from the more remote consequences of bloodletting. These effects, however, are very likely to recur at the moment that the stimulus of the inflammation is withdrawn and the system is abandoned to its own forces. At this period, therefore, the farther abstraction of blood is in the highest degree dangerous.

Such are some of the principles laid down by Dr. Hall in regard to the effects of bloodletting upon the human system. The following extract from the latter part of the work, contains some views which are in a degree original, and which appear well worthy of the consideration of the profession. After giving an account of several cases presenting more or less the aspect of inflammation, but requiring a different mode of treatment, he proceeds as follows.

“The preceding cases are sufficient to establish the fact that there are attacks which resemble inflammation of the head, chest, or abdomen, and yet are totally different in their nature. This fact is, of itself, highly important. And if I should fail in giving sufficient diagnostic marks of these

morbid affections, it will still be of the utmost moment to know, that the distinction is absolutely essential to the adoption of an appropriate mode of treatment; and that whilst we appeal to future experience to render the diagnosis more complete, the peculiarities of each individual case must be carefully seized in order to supply the deficiency of general rules.

I would first observe that the attack of irritation is, in general, more sudden than that of inflammation, which is usually formed somewhat more gradually. This circumstance must therefore be cautiously inquired into, and may assist the diagnosis.

I believe, too, that the seizure in the former case is attended by more distinct rigor, and afterwards by greater heat, than in the latter.

The case of irritation affects, in a marked degree, more organs at once, than that of inflammation, which is usually confined, at first at least, to one.

The state of the tongue and the condition of the alvine evacuations are far more marked by disorder, and the latter are far more offensive, in attacks from irritation than in cases of inflammation.

The affection of the head from irritation comes on suddenly, is formed all at once, and is frequently attended by great restlessness, suffering, and distress, and there is early syncope on taking blood. In arachnitis, the disease is usually formed somewhat more gradually; the patient has been subject to pain in the head perhaps for some days or even longer; he complains less; or at least there is less urgent distress,—less distress of a general kind; the pain may be very severe, although it is more frequently rather obscure; the intolerance of light and sound is less urgent; the rigor, and subsequent heat, and the attack in general, are less marked; the patient is not so soon relieved by remedies, and the tongue and alvine evacuations are less morbid, and there is, especially, great tolerance of loss of blood. In the attack of affection of the head from irritation, the patient is relieved perhaps completely if the lancet be employed, but the attack soon recurs with equal or greater violence; in arachnitis, the relief is seldom so complete, the interval of ease so long, or the return so marked; the pain is diminished, perhaps, but gradually resumes its former violence, unless active measures be interposed.

When the chest is affected from irritation, the pain is severe and acute, and perhaps increased by a full inspiration; if the inspiration be repeated, however, a second and a third time, the increase of the pain is less and less; the situation of the pain varies; there is no cough, no crepitus on making a full inspiration. In all these respects the case differs from inflammation. The remarks already made respecting the relief from remedies, the effect of bloodletting, the tendency to a sudden recurrence of the pain, &c. in cases of affection of the head, apply equally here.

I had long remarked that there might be both acute pain and tenderness under pressure, of the abdomen, without inflammation; this state of things is frequently the result of intestinal irritation. It is distinguished from inflammation by the general symptoms of this affection, the mode of attack, the effects of remedies. In inflammation, the surface is usually cool, the head unaffected, the patient remarkably quiet; in the case of irritation, on the contrary, there is generally much heat after rigor, the head is much affected, and the patient is restless and generally distressed, the tongue loaded and perhaps swollen, the alvine evacuations extremely morbid, and great relief is obtained by the free operation of medicine."

GROG SHOPS.

THERE is no more flagrant nuisance in this good city than the petty grog shops which meet the eye and offend the olfactories at every corner. Notwithstanding the various and efficient measures which have been adopted of late years to suppress that most odious and disgusting vice which is conceived, and born, and nurtured, in these pandoric boxes, there never perhaps was a time, when there were in this place so many of these lounging places for the idle and depraved, as at present; there still exists a fearful measure of tippling, idleness, rudeness, and depravity, among a certain class of our young men. This is believed to be a fact, and we apprehend the most intelligent and observing portion of the community will bear testimony to its correctness. Six if not sixteen of these shops are licensed, where one should be, and many are the glasses of intoxicating liquor hourly dealt out from places that have received from the city government no licence whatever. Even at rooms so public as the starting places of the "hourlies" that leave the city—in the same apartment that we must enter to leave directions on the slate,—decanters, filled with the tempting liquors, are arranged on shelf above shelf.

Whilst all are deploring these circumstances, and devising means to prevent so serious an evil, it may be pardoned us if we suggest that every person who retails spirits by the glass, should be compelled to keep his shop in some conspicuous situation, and have a sign over his door, with the words **GROG SHOP** on it in large and plain letters. Our chief reason for this suggestion is, that persons of good character and good habits, are gradually led into the practice of tippling by the temptation offered them at necessary visits to grocery stores. At length, they imagine they may indulge without being suspected of resorting to such places with any other intention than to purchase a pound of sugar or of tea. Under this effectual protection, they glide into habits which their sense of character and love of a good name might have prevented them from contracting, if the plan we propose had been in vigorous execution.

Directly opposite our window is a pitiful *grocery* "licensed to retail spirits;" and within the last six years we have seen men of family, character, and even literary pretensions and reputation, gradually led on in the course we have described, until they have become confirmed drunkards. Let it not then be deemed an idle dream, or a mere speculation, when we state our belief that the root of the evil is in combining *grog-shops* and *groceries*: we speak from observation, and would most earnestly invite the attention of the public to the necessity of separating wide apart these two kinds of establishment;—let the grocery be such in its purity, and let the grog shop be so plainly designated, that no one can enter it without his errand being known, and no one be led into it by the ordinary calls of his family.

Surgical Operation.—A very large steatomatous tumor, weighing more than three pounds, and in the shape of a placenta, was extracted last week from the shoulder of one of the inmates of the House of Industry at South Boston. The operation was performed with perfect success by the intelligent surgeon of the establishment, whose reports of instructive cases have from time to time been published in this Journal. The patient bore the operation well, and is now in a fair way to recover his health.

Cyclopedia of Practical Medicine.—This work promises to be one of great value. It is published monthly in London, at five shillings sterling a number, and sold in this country for \$1,12½. The first No. is arrived and fully meets our expectation. We understand, however, that it is to be republished in Philadelphia, and the American copy will probably be afforded at a less price. At a subsequent period we shall offer a more minute account of this Cyclopedia.

☞ We shall be happy to hear oftener from the writer of the interesting paper on Cholera, which will be found in the Journal of to-day.

Whole number of deaths in Boston for the week ending March 3, 24. Males, 14—Females, 10.

Strangled, 1—dropsy, 1—lung fever, 3—unknown, 2—influenza, 2—consumption, 4—infantile, 1—throat distemper, 1—dropsy on the brain, 2—scarlet fever, 2—croup, 2—drowned, 1—measles, 1.

ADVERTISEMENTS.

RYAN'S MEDICAL JURISPRUDENCE.

JUST published and for sale by CARTER & HENDEE, A Manual of Medical Jurisprudence, compiled from the best legal works; being an Analysis of a Course of Lectures on Forensic Medicine, annually delivered in London by MICHAEL RYAN, M.D., Member of the Royal College of Physicians, London, &c. &c. First American Edition, with notes and additions by R. EGLESFELD GRIFFITH, M.D., Lecturer on Materia Medica and Medical Jurisprudence in the Philadelphia School of Medicine. March 7.

THE CYCLOPEDIA OF PRACTICAL MEDICINE,

EDITED by JOHN FORBES, M.D., ALEXANDER TWEEDIE, M.D., JOHN CONOLLY, M.D. English edition, published monthly. No. 1, for January, 1832. Subscriptions received by CARTER & HENDEE. March 7.

THE CEREBRO-SPINAL AXIS OF MAN, with the origin and first divisions of its Nerves. From the French of M. MANEC, D.M.P., Lecturer on Anatomy and Operative Surgery, &c. at Paris. Translated and revised by L. PANCOAST, M.D. Just received by CARTER & HENDEE. March 7.

LIZARS'S ANATOMICAL PLATES. CARTER & HENDEE have for sale an English copy, well bound. March 7.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

WEDNESDAY, MARCH 14, 1832.

[NO. 5.]

SYNCOPE AND CEREBRAL CONGESTION.

Observations on Syncope and Cerebral Congestion. By M. PIORRY.

THE above subject occupies the fifth section of M. Piorry's Collection of Memoirs, and deserves some notice in this Journal.

1. *Causes of Syncope.*—The general opinion, corroborated by Bichat, was, that syncope was entirely owing to suspension of the heart's action. But it is to be remembered, says M. Piorry, that many of the exciting causes of syncope, as moral impressions, odors, the sight of disgusting objects, &c. can only act on the brain or the organs of sense. Is it the same in syncope from hæmorrhage? Let us, says our author, interrogate the facts. It is rare that, in syncope, the action of the heart completely ceases. In hæmorrhage, the cerebral functions fail before the contractions of the heart. The latter organ beats a long time, though feebly, after the sensorial functions are suspended. The heart is found to beat for some time after an animal has been bled to death. If a man or animal be kept with the head elevated, after a considerable quantity of blood has been lost, syncope will take place, although the heart will be heard to beat in the chest, and even the pulse felt in the arteries of the lower extremities. "It is, therefore, in the brain that lipothymia commences." If we lower the head, and raise the inferior extremities, syncope will cease—hence we may conclude, that it is the restoration of cerebral excitement which puts an end to syncope. Those syncopes (says our author) which are produced by certain moral impressions and sensations, are evidently the result of defective action in the brain, the same as in the other cases. Pullen, indeed, separates these two kinds of syncope, placing those from hæmorrhage to the account of the heart—those from moral impressions or physical sensations to the brain; but Bichat, with whom our author disagrees, traces both classes to the same organ—the heart—M. Piorry, to the brain, conceiving that the heart is only secondarily affected.

Diagnosis of Syncope from Cerebral Congestion.—To discover that an organ is suffering requires not much skill; but to ascertain the mode in which it is laboring is not quite so easy. If irritation was always the same in its nature—"if diseases were, in all cases, alterations in *plus*, and never in *minus*"—in short, if there were no specific diseases, diagnosis would be a much easier study than it is. But reason, as well as experi-

ence, shows that there are different kinds of irritation—and it is in the endeavor to maintain its identity in all cases, that the disciples of Broussais have thrown themselves most off their guard. An organ will often exhibit the same symptoms from excess, and from defect of stimulus. Thus, when the retina is over-excited by intense light, indistinct vision is the result. The same takes place when we pass from a very clear light to an obscure one. The voice becomes hoarse when the larynx has been much exerted—and the same thing often occurs if we remain several days without exercising this organ. An instance of this is related by the author, but we imagine it is far from being a general phenomenon. The stomach becomes irritated, painful, and even inflamed, from excesses of the table :—the same phenomena occur when hunger is long sustained. The disease called hemicrania is occasioned by plethora, and also by inanition. The muscular fibres of the stomach, bladder, rectum, &c. contract by the excitation of their contents, or the influence of the nerves distributed to them. They contract also convulsively when they are deprived of their due supply of blood, or when the brain ceases to receive its supply of the vital fluid. Finally, observes our author, the phenomena of syncope and of apoplexy, or cerebral congestion, display an analogy and similitude that, he has no doubt, causes them often to be confounded. The distinction, however, is of vast importance, and M. Piorry proceeds to inquire, if there can be any functional symptoms which can tend to elucidate the diagnosis.

1st. In cerebral congestion, or apoplexy, there is suspension, more or less sudden, of the intellectual functions :—The same in syncope.

2d. In the *former* disease, there is a suspension of function in the organs of sense :—The same occurs in lypothymia. In both cases, we sometimes see spasmodic contractions, sometimes loss of power of the members.

3d. The drawing of the mouth and the partial paralysis have been laid down as pathognomonic signs of effusion on, or some disorganization of the brain ; yet our author has seen these phenomena unequivocally in syncope. The same may be said of convulsive motions in the eyes and muscles of the face—involuntary evacuations—stertorous breathing, &c. The state of the circulation furnishes more certain diagnostic marks. The contractions of the heart, in cerebral congestion, are slow, soft, and easily analyzed. In syncope, they are accelerated, weak, and very irregular. The pulse in general, and especially in the arteries about the head, is full, vibrating, and slow in apoplexy—the reverse in syncope. In the *former*, the face is red—in the *latter*, pallid. But these indications are not always so very clear in the state of the circulation. Cerebral congestions or apoplexies sometimes supervene in individuals, whose circulation is languid and pulse feeble—whose faces and lips are habitually pale. Thus, he observes, the diagnosis between syncope and apoplexy, in many cases, is very difficult ; and yet it is of the greatest importance that these two affections should be accurately distinguished from each other, as they require diametrically opposite treatment. The author is quite sure that the two affections are often confounded—acknowledging that he himself has committed the mistake. Indeed he relates a case of this kind. The diagnostic mark which M.

Piorry relies on is altogether a physical one. It consists in the *position* of the patient. If the phenomena depend on syncope, the horizontal position will ameliorate the symptoms, and vice versâ. If on cerebral congestion, the vertical posture will relieve, while the horizontal will aggravate the symptoms. In the latter case (cerebral congestion) M. Piorry recommends ligatures to be placed on the extremities, to produce a stasis of the blood in those parts. We much doubt the utility of such a procedure. If ligatures prevent the return of venous blood from the limbs, it also prevents any arterial blood being sent to them. The thing, therefore, is as broad as it is long.

II. On Death from Syncope—Observations on Venesection in general.

The cessation of the cerebral circulation is, our author thinks, next to asphyxia from the accumulation of bronchial mucus, the most common way in which death takes place. In all great hæmorrhages, there is an abundant secretion of fluid from the surface of the intestinal canal, and also from all the other mucous tissues, which tends further to exhaust the strength and deprive the brain of a due afflux of blood. The heart being ill supplied with nervous energy from the brain, becomes distended, and at length ceases to carry on the circulation. From the circumstance that the brain is encased in bone, the vessels will be found full after death, even from hæmorrhage—and this has led some pathologists astray. Our author has often seen death occasioned by injudicious venesection. In dilatation of the heart at the Hôtel Dieu, he has often seen the fatal effects of bloodletting. The author therefore lays down a set of rules respecting venesection, which he thinks it would be of great use to observe.

1st. When, in a person, we find a dull sound on percussion of the chest—when there is active dilatation of the heart—when the liver is enlarged—the veins distended, the pulse full, and circulation active, we may be sure that the circulation is in excess, and we need not fear to bleed freely. But if the symptoms are the reverse of the above, we should be cautious in the use of the lancet. We should also be cautious, he observes, when the skin is fresh-colored, but where the integral organs give indications the reverse of plethora. In doubtful cases we should never bleed in the horizontal position; for if syncope then occurs, we have no resource from change of posture.

INTRO-ANIMATE PATHOLOGY.

The Result of Modern Investigations on this Subject.

The following summary and deductions conclude the ingenious work of Dr. Neale on the Linnæan doctrine, some account of which we offered in a previous number.

FROM a careful review, says he, of all the facts before stated, I think we may be justified in coming to the following deductions.

1. That it is a general law of nature, from which even the human body is not exempted, that death (in most instances) is caused by the agency of parasitical insects and animalcules, which entering, nidifying

in, and preying upon, the bodies of animals, or the leaves, trunks, or cortical matter of vegetables, and corrupting their vitality, in a longer or shorter period, produce this effect—death.

2. That the presence of such parasitical animalcules has been amply proved in diseases of the human body, such as those of the skin,—scabies, guinea worm, leprosy, &c., by learned and competent observers : and in dysentery, phthisis pulmonalis, ophthalmia, and other maladies, by Rolander, Bartholinus, Linnæus, Lowenhoeck, Adams, Sir Joseph Banks, and other physicians, philosophers, and naturalists :—that their existence also is unquestionable in phthiriasis and ulcers, as proved by a great variety of acknowledged facts ; and witnessed amongst others, by Sir Edward Wilmot, Drs. Mead, Heberden, Sir George Baker, Dr. Mouffet, and other physicians of equal veracity and authority :—and that their presence has been asserted and all but proved in plague, syphilis, scarlatina, puerperal fever, smallpox, measles, whooping cough, acrodynia, yellow fever, &c., by such men as Athanasius Kircher, Linnæus, Hauptmau Langius, and others of equal note.

3. That living parasitical animals have been found in almost every part of the human body, as in the brain, frontal sinuses, lungs, stomach, liver, intestines, kidneys, bladder, interstices of the muscles, &c.—as appears from the researches of anatomists and naturalists.

4. That substances called vermifuge, or the most speedily destructive of insectile and animalcular life, have been found generally the most valuable and efficient remedies in the cure of a great variety of human diseases ; but more especially in plague, syphilis, puerperal fever, scarlatina, acrodynia, yellow fever, cholera epidemica, leprosy, dysentery, smallpox, whooping cough, measles, &c. &c.

5. That, from their extraordinary exemption from the contagion of plague, enjoyed by persons carrying on particular occupations, particularly those whose dresses are always saturated with powdered quick lime, as tanners, whitewashers, limeburners, &c., and also by all manufacturers and porters of olive oil in the Levant and coast of Barbary — and from the great efficacy of warm oily frictions and potions of olive oil ; there seems to be little or no doubt that the efficient causes of plague consist in minute insects, whose vitality is incompatible either with oil or quick lime.

6. That as all living animals, clothed with fur or feathers, are universally believed, in oriental countries, to be the intermediate living agents in diffusing pestilence (cats, owls, &c. being invariably shot by the Franks during their times of seclusion), there seems to be much reason for believing that the insects of plague burrow in the skins of these animals, and are thus transported from place to place.

7. That the birds of the air die in large numbers, and have been even known to forsake countries during times of pestilence : and when the last pestilence raged at Gibraltar, parrots, canaries, and other small birds in cages, and even poultry and domestic animals, perished in great numbers. At Marseilles, during the plague of 1720, all the bakers died, probably from the acari or plague insects burrowing in the dry wheat flour of their ovens.

8. That epidemic diseases are generally diffused in three different

ways : namely, either by immediate contact, intermediate contact, or through the agency of certain mists, or exhalations, carried through the atmosphere.

9. That instances of the first mode of diffusion, called contagion, are most frequent in plague, syphilis, leprosy, smallpox, scabies, &c.

10. That the second mode of diffusion, or by intermediate contact, is that whereby these diseases are generally said to be inoculated, as by the puncture of a lancet or needle, or the application of an infected dos-sil of lint to a moist or abraded surface or the pores of the skin ; but, beyond all, by the agency of winged or creeping insects, which by puncturing the skin, apply the poisonous matter to the open mouths of the absorbent vessels ; and which insects we have denominated “ pestiferous.”

11. That the third mode of diffusion, or the agency of certain mists or exhalations from the earth, is that employed by DIVINE PROVIDENCE, at the first commencement of all epidemics : by which these are wafted over rivers, mountains, and even seas ; and which exhalations, being admitted into the nostrils and lungs, become thus immediately applied to the sentient extremities of the nerves, paralysing the brain and spinal marrow, and instantly putting a stop to the muscular motion of the heart, and causing asphyxia, followed by death. By this mode, too, a multitude of persons are affected at the same time, and thereafter the disease is diffused as in radii from a centre.

12. That a non-electrical, or negatively electrified state of the atmosphere seems to be a most powerful predisposing cause at least in the human body, to prepare it to take on diseased action, and that, on the contrary, a highly electrified or positively electrified state of the atmosphere, is the most salubrious and conducive to human longevity.

13. That the winds from the *south-east* quarter (at least on this side of the equator), have been observed in all ages to be of a highly deleterious character. That such winds have been found to be instantly fatal if inhaled in the deserts of Lybia and Africa, and are known under the names of Simoom and Kampsin by the Arabs, Moors, and Turks, and in Italy, Malta, and Sicily, by the appellation of Sirocco winds : and that most epidemic diseases come to us from the S. E. quarter, and are brought by these winds, which are generally followed by the rapid fall of the mercury in the tube of the barometer, and are believed to be accompanied by a non-electrical state of the atmosphere.

14. That, on the contrary, the winds coming from the north-west quarter, are (on this side of the equator) of a highly salubrious quality : that they are frequently attended by clouds highly electrified, which, on discharging their positive electricity, and producing thunder storms and torrents of rain, restore the electrical equilibrium and salubrity ; while, at the same time, they destroy insectile and animalcular life, which is always too energetically evolved by S. E. winds.

15. That the efficient causes of pestilence (believed by us to consist in myriads of transparent minute ova or animalcules), are wafted in straight lines over the surface of the globe, (on this side of the equator,) on the bosom of S. E. winds, proceeding in regular daily distances, commensurate to the daily flights of deleterious insects, such as those of the

wheat flies, aphides, locusts, &c., and which we believe might be visible to our eyes, if our powers of vision were sufficiently powerful to perceive such minute objects.

16. That a "state of predisposition" in the living human body, consists in a state of debility however produced : either by great solar heat, breathing impure air, imbibing copiously intoxicating liquors, exposure to night air, or the action of previous diseases or loss of blood, or great negatively electrical variation of the atmosphere in which we live.

17. That the experiments of Count Moscati have proved that albuminous matter, which is the most putrescent of all substances, is generally floating in the air of marshes ; and that similar experiments made by Mr. Hermann, in Russia, have proved the existence of a similar substance in the air surrounding the bodies of those who are suffering under epidemic cholera.

18. That all great pestilences have been attended by, but most commonly preceded by, a similar mortality amongst cattle, and the other domestic animals, not even excepting the birds of the air, or the fishes in rivers : and also by diseases called "blights" amongst vegetables.

19. That blights, amongst corn and vegetables, are caused by myriads of small insects and animalcules.

20. That the feeding upon the flesh of diseased animals and blighted vegetable substances, has been ever found a most powerful predisposing cause of pestilence, and that such food has been ever found adequate to produce great mortality, as instanced in dry gangrene and convulsive and gangrenous ergotism, which have finally become epidemic.

21. That a noisome stench has been generally observed to precede or accompany the prevalence of epidemic diseases ; as was remarked lately at Paris, during the disease called acrodynia or "dando" fever, and as has been mentioned in the sacred writings, and by various accurate observers.

22. That great heat, attended by calms, and a non-electrical state of the atmosphere, energetically develop insectile and animalcular life, and contribute to the evolution of mists and exhalations, which then arise copiously from all marshy plains and pools of stagnant water, which, at such periods, are prone to put on the color of blood.

23. That violent electrical convulsions and thunder storms instantly destroy insectile and animalcular existence.

24. That deleterious insects are either finally swept away by strong north winds into the sea, there to perish, or that seasons of great pestilence are followed by violent storms of thunder, lightning, and rain, which destroy the ova or animate causes producing pestilence, and restore salubrity, as is yearly witnessed in Constantinople, Syria, Egypt, and Barbary.

25. That the universal experience of mankind in all ages bears testimony to the prevalence of these facts :—That they are confirmed by the writings of all historians, sacred and profane—and that the inspired writers more especially confirm the truths here inculcated.

26. That insects are always styled in the sacred volume the armies of the MOST HIGH GOD, and the destined ministers to fulfil his will : and that nothing is wanting to make these truths universally acknowledged

but more accurate observations of what is now daily passing upon the surface of this our globe.

27. That all great pestilences have been commonly observed in this our hemisphere to have originated in the regions of the East, and to have been wafted on the bosom of S. E. winds over the other regions of the earth; as has been exemplified in the great pestilence of the 14th century, and more lately during the progress of the epidemic cholera; and that all minor deviations from this course have been only effected by the passing to and fro of multitudes of human beings in ships and caravans, bringing the insects with them—Nay, that even the sweating sickness which broke out in England in the army of Henry VII. on coming from France to Wales, was believed by the historical writers of that age to have been brought from the isle of Rhodes several years previously.—See Dr. Caius de *Ephmera Britannica*—Lord Verulam's *History of Henry VII.*—Thuan's *Historia*. Lib. 5.—Lord Herbert's *History of Henry VIII.*

ATTENDANCE OUGHT NOT TO BE GRATUITOUS.

Heu, mihi! me malus abstulit error—amor pecuniæ.

[We copy the following very sensible letter to the Editor of the London Medical Gazette, as it presents a correct view of a subject on which there exists erroneous impressions in the community, and perhaps among medical men themselves.]

SIR,—

THE daily occupation of the medical man is at once the work of public humanity and of personal profit. His task and duty is to do good, to stand by the sick, to cheer the conscious sufferer from vicious indulgence, and to administer solace to the mind, and ease to the body. In the day of battle, the medical man endeavors to save the life which the soldier destroys; and when a national pestilence is abroad, the medical man is chiefly exposed to the pest while watching and learning its nature and treatment. He always performs the work of charity, because he gains his daily bread by being charitable.

A false notion is now afloat concerning the humanity of medical men. While a disease is threatening to infest our capital, public authorities are wisely convened to forestal and prevent its ravages among the dark and dirty dwellings of the poor; and the poorer people are cleansed and cheered according to the active and diligent instructions of their alarmed superiors. A general feeling of humanity is produced and enforced by private apprehensions. Sobriety, one of the first of Christian virtues, is now proclaimed, not by the voice of wisdom, but by the shout of calamity. In the discharge of this novel duty, the medical man is called upon to take his part; but his part is to be discharged, not in anticipating the arrival of the disease, but in meeting it when it is arrived. He is to hold himself in readiness to rise by night and by day, to enter the houses of the poor, to detect, to touch, to handle, and to treat, a loathsome sickness, and to lean over the bed, or to tarry by its side, till safety or

death shall have ensued. If there be any contagion or infection, he is exposed to the baneful influence ; if there be any hazard of health, he is open to the obvious danger. We doubt not the moral energy and the professional avidity of any medical practitioner in the encountering of a new disease ; the eagerness with which the philosophic physician would hasten, any hour, to survey, perchance to understand and to cure, a spreading evil fatal to the lives of men ; but no man is justified in wantonly exposing his person to mischief ; and every master of a family is bound to consider those who depend upon him for support. The danger may be adventured upon, but only with the prospect of a fair remuneration ; and those authorities which require the medical man to serve for nothing, dictate an act of humanity to be practised only according to the feelings and the means of the individual dictated to. A medical man's time and judgment are purchaseable articles ; and they are, like bread and wine, to be purchased in all seasons, both of prosperity and of national adversity ; since humanity is exhibited, not by acting for nothing, but in doing to the utmost what is right and proper, in the hope of a legitimate reward. They who do less than this, are inimical to themselves and to the common weal ; for how shall society be held together, if mutual advantages be not considered ? The medical man must support himself by his labor, and he will soon cease to be able to act gratuitously if his labor do not supply him with the means to live.

But suppose there be no danger of infection, and that the disease were curable by a touch, nevertheless that touch, and that exertion, without hazard, is still worthy of a just reward. So that, if the poor are to be attended gratuitously, let the medical man act for himself, as he frequently does act, without ostentation, by giving, if he choose, his advice and his medicine as a free gift, merely with the hope of doing good.

These observations are presented to your notice, because some parishes have called upon medical men, and some medical men have voluntarily offered themselves, to act upon a principle of bald humanity—a humanity which is to be exercised according to the authority of a vestry. And it appears to me (perhaps I am sordid) that in exact proportion as we are called upon to do more, so are we worthy of a higher pay ; and that when our rest and our health are to be exposed and broken, we are not justified in promising our services without the certainty of an appropriate remuneration. Money we desire for ourselves indeed, but more for those who live by our exertions. Money is the source of subsistence. The days are gone when we might pluck, and live with ease and pleasure, from the tree of life ; and in England a man will be arrested for nudity, if he have not money to clothe himself withal. The profit to be expected from an extension of name and reputation, is remote and vacuous ; and that policy is truly fallacious which places the well-being of an individual or a nation not in immediate, but in a prospective good ; since who can foresee or control the adverse rise of intermediate circumstances ?

Having advanced the principle upon which I, as a man, expect the just remuneration of my services, I am not ashamed to say with Horace—*"quærenda pecunia primum est."* I would not let my ear be deaf, nor my eye blind to the sight and the sound of genuine poverty ; nor would I spare my best exertions to alleviate the afflictions of the unfortunate,

the wretched, and the debased ; the knot of my purse can be loosed to give as well as to receive ; and I should blush indeed if my hand were not sometimes open to bestow as well as to accept. I have learned, from the practice of my profession, the pleasure of doing good ; and I only demand for my exertions, especially public exertions, those pecuniary supplies which may still enable me to practise and to study medicine, to support my family, to benefit my friends, and to give to all those who in the hour of need I know will be relieved and comforted by the silent gift of benevolence.

MEDICULUS.

November 25, 1831.

BOSTON MEDICAL AND SURGICAL JOURNAL.

B O S T O N , M A R C H 14, 1832.

RYAN'S MEDICAL JURISPRUDENCE.

THE great number of volumes that have been written on legal medicine, and the different views they present of the principles of this science, may be ranked among the causes of the indefiniteness of the ideas on this subject, of a great majority of the Profession in this country. Few probably are aware of the intricacy of this science, or how wholly incompetent is a common medical education, to enable a man to be a good jurist or to do himself credit when called on for professional evidence in a court of law, unless much time have been expressly devoted to this important branch. Legal medicine forms part of the study of the Law, and, if it be omitted in that of Physic, the practitioner is little to be envied to whose lot it falls to be questioned under oath by an intelligent and shrewd attorney, on such points as the Physician is usually expected to elucidate in criminal prosecutions. As our country grows older, crimes of all kinds will become more common, and medical evidence will be in more frequent requisition. Even at the present day, there are few men who have been long in practice, who have not been compelled, however reluctantly, to decide, by their evidence, the fate of some accused person ; and still more important is it for those who are now students, to make themselves familiar with the intricate machinery of forensic medicine. To such we would recommend an attentive perusal of the "Manual" of Dr. Ryan, which has been republished by Carey & Hart, of Philadelphia, with such alterations as the peculiarities of our laws have rendered necessary. This Manual embraces the whole ground, appears to be compiled with great care from the best authorities, and the language is so plain and explicit as to render it clearly intelligible to the legal as well as medical student. Into the hands of the former, it will unquestionably find its way ; to the latter, the principles unfolded in it should not be unknown.

HISTORY OF THE CHOLERA.

A Medical and Topographical History of the Cholera Morbus, including the Mode of Prevention and Treatment. By M. SCOUTTETTEN, Adjunct Professor of the School of Medicine at Strasburg, &c. &c. *With a Report read at the Royal Academy of Medicine, at Paris, Sept. 17, 1831.* Translated from the French by A. SIDNEY DOANE, A.M., M.D.

THE above is the title of a small volume just published by Carter & Hendee, in their usual style of neatness. The subject is one of exceeding interest to every member of the profession and the community. In Europe the various productions which have been issued from the press, with the design of enlightening the faculty in treating, or the public in avoiding, this fatal malady, are almost without number. In the last Monthly we have received from London there are no less than *eight* distinct works on this subject noticed or reviewed, and in the January No. of the Medico-Chirurgical we find reviewed seven elaborate works on Cholera, viz. those of Dr. Kennedy, Dr. Adam Neale, Mr. Bell, Mr. Orton, Mr. Searle, Dr. Lefevre, and Dr. Young. In addition to these are many miscellaneous works, pamphlets, and lighter productions, as reports, statements, papers, &c. &c. on the same subject, the *Notices* of which occupy about one hundred pages of the last mentioned periodical.

No very great uniformity can be expected in the representations or speculations of these documents which are flowing in upon us so rapidly. The perusal of them rather confuses than directs the mind. It is therefore an act of true benevolence in the Physician who has digested the various accounts that have been published, and presented us, within a small compass, most that is important to be known respecting the history, the symptoms, the modes of preventing, and the present modes of treating the disease.

Dr. Doane, of New York, to whom we are indebted for this translation, has left out the details of the *Report to the French Academy*, and presented only the general summary with which that report concludes, and thus has he diminished the bulk, without lessening, for reasons above stated, the value of his work.

For the purpose of illustrating the progress of the epidemic, a map is appended to this treatise, on which its advances from country to country are marked out.

This we believe is the first work published in this country on the subject of Cholera, and it is confidently recommended to those Physicians who are desirous of obtaining a view of the whole ground without spending half their income, and a still larger proportion of their time.

In noticing and recommending this work, we should except from the general approbation already expressed, the author's few pages on contagion. On this subject he is peculiarly unfortunate. He declares himself a non-contagionist. He is such in his own interpretation of this term; but in the

sense in which it is commonly taken he is a stout contagionist, and ought so to be ranked in arraying one side against the other. He says the cholera has been generally introduced into a place by infected vessels or caravans, and yet denies the contagiousness of the disease. One man who is laboring under it may give it to his attendant, and yet it is not contagious. And so on. The way in which Dr. S. makes out his case may be seen by the following extract, from page 44, with which we close the present notice.

“A man in health remains an unlimited time in a focus of infection; he leaves it, continues well, and goes to live among others who have not been exposed to the miasmata of cholera. Can this man communicate the disease? In other words, can a healthy man carry with him enough of the miasmata to communicate the disease? Observation answers in the negative. * * *

“But if this man, whom we supposed to have quitted the focus of infection, left it when the disease was almost appearing in him, and if he in fact become sick, the miasmata exhaled will then form a new focus of infection which *can* communicate the disease. The following is an instance. An European left Madras, where the cholera existed, in October, 1818: he fell sick on the journey, and died at St. Thomas-du-Mont, where the disease had not as yet appeared. The next day his wife died; two days afterward the landloid perished, and at the end of two days more, the landlady also was attacked with the cholera, as well as the domestics who waited upon them. This fact is one of the most remarkable which has been mentioned by the contagionists in favor of their theory, *but it proves against them*. To demonstrate the existence of contagion, the man must have communicated the cholera to others, without being affected by it himself, as every day Physicians carry vaccine virus, &c. without taking the disease. Thus we repeat it, a healthy man coming from the focus of infection, does not carry with him *enough* of the miasmata to reproduce the disease. This transmission does not occur except by the formation of a new focus”!

MEANS OF RENDERING GIBRALTAR HEALTHY.

DR. NEALE supposes the chief cause of the fever which has been so often and so fatally epidemic at Gibraltar, to be its close proximity to a lofty mountain which completely prevents its being perfused by winds from the north-east. He proposes, therefore, that the British Government should make a tunnel completely through the rock of Gibraltar, in the direction of north-east and south-west, for the purpose of admitting the cool breezes in the heats of summer, and thus affording a proper ventilation. The length of this tunnel would be about three quarters of a mile.

It is well known that the calcareous rock of Gibraltar abounds with large natural cavities, and he supposes it probable that some of these would be laid open in the course of the operation, and that some spring or lake of fresh water might be discovered there, which would add greatly to the healthful result of the work. In default of such discovery, or even in any circumstances, he suggests that a large cavity should be excavated in the side of this tunnel, for an ice house, on the plan of those which exist in the town of La Valetta, in Malta. The whole expense of these works is esti-

mated at about £50,000. If to this sum we add £150,000, we should come nearer than Dr. N. to the true cost of such an undertaking. Even at such an expense, however, the object would not be dear bought, if it were attained; and that it would be in a great measure, there is certainly a high degree of probability.

PURE WATER.

THE universality with which all we eat and drink, is imbued with the water of the city, renders it of vast importance that a supply should be provided of that which is pure and wholesome. On the accession of our present excellent mayor, we were gratified to find this subject mentioned among those to which the attention of the city government was directed, and it was hoped, that ere this, some active measures would be taken towards the accomplishment of so desirable an object. The perfect success of the experiment which has been made at Philadelphia, leaves it no longer problematical whether the finances of this city would justify any extensive movements in this matter. No doubt can remain on the mind of any one who has given the slightest attention to the subject, that the proposed plan would not only be a source of health and comfort to our citizens, but also of actual revenue to the city. These lines, we have indited merely for the purpose of calling the subject up to the notice of those with whom its pursuit now rests, and we trust they will not be inactive in a work, on the expediency of which all the doctors are agreed.

Massachusetts Anatomy Bill.—This bill, with the report of Mr. Davis to the Massachusetts Legislature, are favorably noticed in the last London Medico-Chirurgical Review. After giving a copy of the act as it passed both Houses, the Editor of that Review offers some remarks upon it, from which we extract the following.

“It will be obvious” says he, “to our readers, that the foregoing Act embodies in its provisions most of what has been desired in this country. So far as we can see, it leaves untouched the penal statute, which makes dissection part of the punishment for murder and other great crimes. Probably, this may be the object of a separate enactment. The Act of the Massachusetts Assembly appears to be straightforward and simple, and calculated to answer the ends proposed. It has infinitely the advantage over the legislative bantling which, we had almost said fortunately, miscarried in this country. The American law leaves no field for trickery; does not open a job here and erect corners for abuse there; does not constitute boards, and licences, and committees; in fact it is not stained by that leaven of the patronage system, which seems to infect every action of every institution in this happy land. The American law simply provides bodies for dissection, and gives them first to the medical schools—to regularly-educated medical men when the schools have been supplied.

In conclusion, we beg to press one consideration on our medical brethren in town and country. At the present moment, foreigners are excelling us in the cultivation of our science, and there can be little question that this is

owing to their superior facilities for the acquisition of anatomical knowledge. In America, where obstructions were thrown, as here, in the way of the profession, those obstructions are vanishing before the energetic appeals of that profession to a wise legislature. Let us imitate their example, and we shall equal their success. * * * Liberal institutions are rising around us; the lion of freedom has roused himself, and its enemies are looking aghast. It is with science as it is with the political institutions of nations; she is withered and cramped by the trammels of oligarchies and of despotisms. Let her be free, say we, as the air we breathe, for the more she is released from her bondage, the more bold will be her gait, the more bright will be her hue."

Professor Pattison.—We seem to have obtained some credit abroad for the invitations extended to the Ex-Professor Pattison. The English and Scotch Journals hold the same language on this subject, as a sample of which, we present the following extract.

"We are extremely gratified in learning that our transatlantic brethren have healed the wounds inflicted on Mr. Pattison by his countrymen, by offering him professorships in two different Universities in the United States. This circumstance speaks volumes as to the talents of Mr. Pattison; but it speaks more than volumes as to the generosity—the almost CHIVALROUS HONOR and FEELING of the American Medical Profession! In this world, and sorry are we to say, in this country, an *unfortunate* man, whatever be his merits, too often receives a blow from every friend, in order to sink him lower in the sea of misfortune! May glory, fame, and prosperity forever attend that country, whose HONESTY is not yet engulfed in that sink of mercenary selfishness and corruption which entombed the honor and power of Asia, Egypt, Greece, and Rome—would that we could except modern Europe! N. B. The London University has acknowledged its injustice, by making Mr. Pattison a pecuniary recompence for his wrongs!!"

Analysis of the Blood in Cholera.—Dr. O'Shaughnessey went to Sunderland, as we stated a few weeks ago, to make some experiments on the blood of cholera patients. The results he has obtained are briefly the following:

"1. The blood drawn in the worst cases of *the* cholera, is unchanged in its anatomical or globular structure.

2. It has lost *a large proportion of its water*, 1,000 parts of cholera serum having but the average of 850 parts of water.

3. *It has lost also a great proportion of its NEUTRAL saline ingredients.*

4. *Of the free alkali contained in healthy serum, not a particle is present in some cholera cases, and barely a trace in others.*

5. Urea exists in the cases where suppression of urine has been a marked symptom.

6. *All the salts deficient in the blood, especially the alkali or carbonate of soda, are present in large quantities in the peculiar white dejected matters."*

Nitric Acid in Toothache, by Dr. RYAN.—By referring to page 251, Vol. V. of this Journal, an account will be seen of Dr. Ryan's remedy for

toothache. In the last London Medical and Surgical Journal, we have the following note from him.

“Since my former note upon the extraordinary success of this acid, in giving immediate relief, when properly and cautiously applied to caries of the teeth, I have used it in many cases with invariable success. It should be applied with a gold or glass probe covered with lint, as a silver probe decomposes the acid, and renders it ineffectual. It is therefore necessary to cover the ordinary probes with lint very lightly, and to apply the acid quickly to every part of the carious surface. If the disease ascends high into the fang by a fine opening, complete relief cannot be obtained, unless the extremity of the nerve is touched, and this is a difficulty which is often met with, when the upper teeth are affected. In general, the application affords immediate relief without the slightest pain.”

Preparation of Hydriodate of Potash.—Dr. William Gregory recommends the following process for the preparation of that salt. The iodine is to be dissolved with the aid of heat in a solution of pure potash. Enough potash must be added to form a solution having a pretty strong yellow color, and if too much has been used so as to destroy the color, iodine must be added till the color is restored. The solution is then evaporated to dryness. The dry mass, consisting of iodate of potash and iodide of potassium, is now to be exposed to a gradually increasing heat, till it acquires a pretty full red heat, in a covered crucible of platinum or silver. The salt melts, and the iodate of potash undergoes a decomposition exactly analogous to that which takes place in the chlorate of potash when exposed to a red heat. The whole of the oxygen, both of the acid and the potash, is expelled, and iodide of potassium remains; so that the whole of the iodine is now in the form of iodide of potassium, or hydriodate of potash. The heat must be continued at the same degree for about half an hour. When cold, the melted mass is softened out of the crucible with hot water, and dissolved in a moderate quantity of that liquid. If necessary, it is filtered, and the filtered solution is then evaporated to dryness by a gentle heat, when a snow-white crystalline salt is obtained. To ascertain whether the decomposition of the iodate has been complete, a small quantity of the salt is tested in a tube with alcohol, which ought to dissolve it entirely with the aid of heat. If any remains undissolved, and if the undissolved portion dissolves in water, and causes a white precipitate with acetate of lead, it is a proof that some undecomposed iodate is still present, and the salt must be again heated to redness till it stands the above test. A little practice renders it quite easy to know the proper degree of heat, and how long it should be continued.

The salt thus obtained is white and crystalline, deliquescent slightly in the air. It is easily soluble both in water and alcohol, especially if heat be applied. Its solution gives with a solution of corrosive sublimate a precipitate which at first is pink, but speedily changes to a bright scarlet. With acetate of lead it gives a bright yellow precipitate of iodide of lead, which is crystalline if the solution be slightly acid and very dilute.

Overdose of Quassia.—Some years since, a patient with worms (ascarides) having been admitted into a certain hospital in London, he “was prescribed for by a certain physician, then a young man.—He probably having remarked the certainty with which the London pastry cooks and

confectioners are in the habit of administering a little infusion of quassia to certain swarms of most unprofitable customers (the domestic flies in their shop windows), bethought himself of giving a similar treat to the ascarides in his patient's bowels. He, therefore, boldly prescribed a powerful decoction of that wood to be thrown up the rectum, *more solito*. Next morning on the young physician's walking through the ward and arriving at the space then vacant, which had been on the foregoing day occupied by his luckless patient's bed, he turned sharply round to the nurse and inquired what had become of Thomas.—‘Oh faith!’ says the honest Hibernian, ‘sure enough he's gone, sir.’ ‘Gone,’ said the doctor, ‘where?’ ‘Bless your soul, sir, where should he be gone, but to the dead house.’ And so it was, sure enough, for the strong decoction of quassia proved so effectual a poison, that it not only killed the worms themselves, but the poor man that owned them.”

The Nature of Animal Decomposition.—With a view to ascertain the nature of those changes which all animal and vegetable substances undergo, the following experiments have been made.

A piece of muscular flesh was cut from the leg of a calf about half an hour after it had been slaughtered, and inclosed within a glass tube, which was hermetically sealed by means of a lamp and blow-pipe. It was then exposed to the rays of the sun in a southern window during three days of summer. On the third day the whole of the internal surface of the tube was found to be covered with a bluish coating, resembling the blue covering of a plum, and was distinctly observed to be perfectly alive, consisting of minute animalcules, whose motions were perceptible even to the naked eye, but still more on the application of a magnifying lens. The same experiment was repeated with beef, mutton, lamb, pork, and fish, with the same results: excepting, that of all flesh, pork became the soonest animated; and of all the fishes observed, that of the mackerel was the soonest corrupted.

The above facts seem to favor the doctrine of animate pathology, for it is well known to every physician that pork and mackerel, when kept too long before being taken into the stomach, are more frequent causes of disease than any other species of animal food.

The Passage of a Simoom.—Bruce thus describes the approach of a simoom which he witnessed in crossing the desert of Nubia. “At eleven o'clock, while we contemplated with great pleasure the rugged top of Chiggre, to which we were, fast approaching, Idris cried out with a loud voice, ‘fall upon your faces, for here is the simoom.’ I saw from the south-east a haze come, in color like the purple part of the rainbow, but not so compressed or thick. It did not occupy twenty yards in breadth, and was about twelve feet high from the ground. It was a kind of blush upon the air, and it moved very rapidly, for I scarce could turn to fall upon the ground with my head to the northward, when I felt the heat of its current plainly upon my face. We all lay flat upon the ground as if dead, till Idris told us it was blown over. The meteor or purple haze which I saw, was indeed passed, but the light air that still blew was of heat to threaten suffocation. For my part I found distinctly in my breast that I had imbibed a part of it, nor was I free of an asthmatic sensation till I had been some months in Italy at the baths of Poretta, near two years afterwards.”

Puerperal Fever Epidemic.—We have well-authenticated records of the puerperal fever having been epidemic in Europe eleven times in the last two centuries; viz. in 1662, at Leipsic; in 1662, at Copenhagen; in 1723, at Frankfort; in 1746, at Paris; in 1767, in Normandy; in 1770, in the Hospital of St. Marks at Vienna; in 1771, in the lying-in Hospital of Westminster; again in Vienna, in the years 1776 and 1780; again in Paris, in 1782, in the Hotel Dieu; in 1786, at Arzago in Lombardy; once more in London, in 1787, and in Somersetshire, in 1811.

Monthly Notice of New Publications.

Under the above head, we propose, once a month, to offer some brief account of such works on subjects connected with the medical and other sciences, as may be *published, republished, or received* in this country. In order that the earliest information of such books may be given to our readers, we request publishers who may forward works to be noticed in this department of the Journal, to send them as soon as convenient after they issue from the press.

☞ All communications to the Editor should be left at his house, or at the office of CLAPP & HULL, No. 184 Washington Street.

Whole number of deaths in Boston for the week ending March 9, 38. Males, 18—Females, 20.

Of brain fever, 1—lung fever, 6—stoppage in the bowels, 1—dropsy on the brain, 1—infantile, 2—influenza, 2—inflammation in the bowels, 1—old age, 3—throat distemper, 1—consumption, 4—apoplexy, 1—intemperance, 2—inflammation on the lungs, 1—scarlet fever, 6—croup, 1—jaundice, 1—smallpox, 1—tumor, 1—unknown, 2.

ADVERTISEMENTS.

HISTORY OF THE CHOLERA MORBUS.

JUST published by CARTER & HENDEE, a Medical and Topographical History of the Cholera Morbus, including the mode of Prevention and Treatment, by SCOUTTETTEN, adjunct Professor at the School of Medicine at Strasburg, member of the Royal Academy at Metz, &c. &c., with a Report read at the Royal Academy of Medicine at Paris, Sept. 17, 1831. Translated from the French, by A. SIDNEY DOANE, A.M., M.D. m14

REPORT OF THE ROYAL ACADEMY OF MEDICINE to the Minister of the Interior, upon the Cholera Morbus, published by order of the French Government. Translated from the French by JOHN W. STERLING, M.D. Just received by CARTER & HENDEE. March 14.

A Treatise on the Structure, Functions, and Diseases of the Human Sympathetic Nerve. Illustrated with Plates. By John Fred. Solstein. Translated from the Latin, with Notes, by Joseph Pancoast, M.D. Just received by CARTER & HENDEE. March 14.

A DICTIONARY OF MEDICINE, designed for popular use. By Alexander Macaulay, M.D. Second English edition. Just received by CARTER & HENDEE. March 14.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.] WEDNESDAY, MARCH 21, 1832.

[NO. 6.]

IRITIS.

On the Use of the Oil of Turpentine in Iritis. By JOHN FOOTE, Esq.

INFLAMMATION of the iris may exist independent of, and totally unconnected with, inflammation in any other membrane of the eye, such as sclerotitis or corneitis; such is the opinion of Mr. Mackenzie, of Glasgow: yet it is more frequently accompanied with one or more of these inflammations. Many medical men have seen cases of iritis with corneitis, sclerotitis, or inflammation of the conjunctiva, that have never seen a case of simple iritis, or one unattended with any other inflammation. From what I have seen of it, its more frequent accompaniment is the inflammation of the conjunctiva; and, from this disease being occasionally severe, the iritis is sometimes overlooked, more especially if the attack be slight. When the inflammation runs very high, it is liable to extend to the choroid coat and retina: this fact has induced some writers to deny that iritis can occur without extending to the retina; but it is a mistake: *simple iritis* may take place. The disease commences most frequently on the pupillary margin of the iris, and extends thence through the whole of the tunic; and so rapid is its progress in the adhesive process, that we sometimes see effusion taking place on the pupillary margin, and the lymph even becoming organized, ere the rest of the iris is much engaged in the disease. It is from the extreme rapidity with which the adhesive process proceeds that iritis is so dangerous, and requires such energetic measures.

Semeiology. The disease is characterized by certain symptoms in all its forms. We have a beautiful zone of pink hair-like vessels running towards the cornea, forming an appearance like the rays of the sun, as represented radiating from that body. A change of color of the iris is also remarkably evident, owing to its increased vascularity: if blue, it becomes greenish; if dark-colored, reddish. Contraction, irregularity, and immobility of the pupil, speedily follow, unless prevented by proper treatment. Effusion of coagulable lymph into the pupil and posterior chamber, rarely into the anterior; adhesions of the iris; dimness of sight, and sometimes almost total blindness; pain in the eye, and nocturnal circumorbital pain.

This classification of symptoms is according to Mackenzie, in his splendid work on the Eye: all, or the greater part, exist in every case of iritis. The change of color of the iris, the zonular appearance, irre-

gularity of the pupil, together with the pain, are the most frequent symptoms, and are those also which best indicate the nature of the complaint.

Iritis is frequently divided into idiopathic, traumatic, sympathetic, syphilitic, rheumatic, and arthritic : besides these, there are various compound cases, as when the rheumatic and arthritic are combined, or the rheumatico-syphilitic, or else the arthritico-syphilitic. These distinctions depend more on the causes than on the semeiology or treatment of the disease : thus, the idiopathic arises from cold, or some unknown cause ; the traumatic, from wounds ; the sympathetic, when it supervenes on some other long-continued or very severe inflammation, as on sclerotitis, &c. : these are evident. The rheumatico or the arthritico-syphilitic depends on syphilitic iritis appearing in persons with a rheumatic or arthritic taint in their constitution ; and these cases will generally require the addition of colchicum to the means we employ to effect a cure.

General Treatment. In strong and plethoric subjects, and more especially in the traumatic, syphilitic, and occasionally the sympathetic, the patient should be bled freely from the arm, *pro ut ferant vires* : this will remove the pain for a time, or at least diminish it very considerably. If the pain return violently, the bleeding must be repeated : but it will generally be found sufficient in that case to bleed locally by cupping, in preference to leeches. The generality of cuppers open the temporal artery in cupping on the temples, and we thus obtain what we wanted, and which we could not get by leeches, a rapid loss of blood from the part : the cupper should be always desired to open the artery, or a branch of it. Next to bloodletting, or rather equal, and by some considered superior to it, ranks mercury : this is frequently administered alone, without any other remedial agent, and has certainly, under such circumstances, cured the disease, of which I have seen several instances.

The best form for giving this medicine is a combination of calomel and opium : two grains of calomel and a quarter of a grain of opium, (the dose of the latter increased, if purging come on,) given every second, third, or fourth hour, according to the urgency of the case, so as to salivate rapidly. When the disease continues advancing, and it is not easy to produce that effect of mercury by which it manifests its action, inunction on the temple, either of the ung. hydrarg. alone or combined with belladonna, may be had recourse to with benefit. The power of mercury over this disease is so very great that it has been considered a specific ; and yet, such is the strange anomaly of medical facts, it is supposed that mercury can produce the disease. I have never seen an instance which I could fairly attribute to mercury ; and numerous instances are recorded in which iritis appeared, although no mercury had been given.

In the rheumatic and arthritic, and also in the syphilitic, when combined with these diatheses, it will be necessary to adjoin colchicum, or some of its preparations, with the mercury : in such a case, if calomel be given, it should be administered in conjunction with the extract of colchicum and opium ; but the better way of giving mercury is by inunction, and the internal use of the Vinum Colchici. Such subjects do not bear bleeding well, and it is apt sometimes, more especially in bad constitutions, to prove injurious, by inducing a chronic form, which is difficult to cure, and frequently ends in the worst form of amaurosis. In some

persons, owing to idiosyncrasy, mercury cannot be administered, from the distressing effects it produces. Again, when patients have undergone lately, one, two, or more courses of mercury, they are unwilling, and sometimes unable, to bear another course of this powerful remedy : in such cases, turpentine should be had recourse to. This remedy was introduced by Hugh Carmichael, Esq., of Dublin : I quote his words on this occasion, from his *Observations on the Efficacy of Turpentine in the Venereal and other deep-seated inflammations of the Eye*, published in 1829. " I use the turpentine in this complaint in drachm doses, given three times a day : its disagreeable flavor and nauseating effects I have found best obviated by almond emulsion. This circumstance it is very necessary to attend to, the medicine being so unpleasant that, if its taste be not in some way disguised, it is difficult to depend on patients taking it with the necessary regularity. In the formation of the emulsion, if double the quantity of confection directed in the London Pharmacopœia be employed, (that is, two ounces to the half-pint of water,) it answers the above objects much better : the residuum may be removed by straining.

" With an emulsion so made, the following is the formula I now generally adopt : R. Olei terebinthinæ rectificati, 3j. ; vitellum unius ovi ; tere simul, et adde gradatim emulsionis Amygdalarum, 3iv. ; Syrupi Corticis Aurantii 3ij. ; spiritus lavandulæ compositi, 3iv. ; olei cinnamomi, guttas tres vel quatuor. Misce, sumat cochl. larga duo ter de die.

" In a few cases it has been necessary to increase the quantity of turpentine to an ounce and a half or two ounces in the above mixture, the other ingredients being proportionally diminished, so that a drachm and a half or two drachms of it may be taken each time ; but in general, when administered to the extent directed in this formula, it has very seldom indeed failed, though extensively tried, and in very urgent cases : the instances of its failure shall be presently noticed. The strangury, so frequently induced by the internal use of the turpentine, is obviated by the usual means, flaxseed (the linseed of England) tea, and camphor julep : when very urgent, the medicine may be suspended for a time. The tendency to acidity in the stomach, which it sometimes causes, is relieved by the addition of carbonate of soda to the mixture : ten or fifteen grains to the eight ounces will be sufficient. Some patients have said the taste was further disguised by this addition.

" When the local inflammation is high, and acute pain is present in the eye and side of the head, the abstraction of blood from the temple by cupping, or the more immediate seat of the disease by leeching, may be resorted to : the same practice is adopted when mercury is used. Nevertheless, I have frequently, when these symptoms were very urgent, relied solely on the turpentine mixture, and with the most decided and expeditious relief : indeed, in some instances, where the pain and hemi-cranium existed as acutely as they are perhaps at any time to be met with, patients have declared they were considerably relieved after they had taken it once or twice, and that its subsequent exacerbations were lessened in a remarkable degree. It is in the former cases I have generally found it necessary to follow up the bleeding by increasing the quantity of the turpentine.

“It is highly necessary to observe, that the condition of the bowels will require attention : the beneficial effects of the medicine appear to be, in certain cases, suspended when constipation is present, and are called forth, as it were, when this is removed.”

These are the words of Mr. Hugh Carmichael, and they emanate from a man of great practical experience : they give a clear and concise view of the cases in which turpentine should be employed, of the manner in which it should be administered, and the precautions to be taken in employing it.

It was from the acknowledged influence of turpentine in peritonitis, and the analogy in point of morbid effects between inflammation of the peritoneum and that of the iris—in both cases a serous membrane being engaged, and in both adhesions being produced between surfaces intended to be free—that Mr. Carmichael was led to make use of it in iritis : he deems that it acts in the same manner that mercury does, by exciting the absorbents.

Mr. Guthrie, who has given it an ample trial, finds that “in some cases it has succeeded admirably ; in others, it has been of little service ; and in some, unequal to the cure of the complaint.” Mr. Lawrence has not yet tried this remedy.

From several cases which I have seen, I am inclined to think that turpentine acts by exciting inflammation in the intestinal canal, and more especially the urinary apparatus : the cases which have been most successful, of those which I have seen at least, have been those in which severe strangury has been excited. The degree of counter-irritation thus set up will readily account for the removal of the original disease. I have likewise seen cases in which I found it impossible to excite this irritation, (notwithstanding the violet odor was so powerful that it was complained of throughout the house in which the patient resided, and he was obliged to quit his lodgings accordingly,) and in these no benefit was experienced from its use. I have already said, that it was from the acknowledged influence of turpentine in peritonitis, and the analogy in point of morbid effects between inflammation of the peritoneum and iris, that Mr. Carmichael was induced to try the turpentine : now, as he has taken the example of the use of turpentine in peritonitis to fortify his opinions, I hope I may be allowed the same privilege, of which I shall instantly avail myself, and proceed to ask in what way turpentine acts in curing that inflammation ? If we consult the best works on that subject, we shall find it attributed to the irritation produced along the whole alimentary canal, not the intestinal tube only, as it produces nausea, and frequently vomiting : when we consider the immense extent of surface exposed to the action of this medicine in that canal, and recollect the degree of irritation produced by a common spurge in that canal, we shall have no difficulty in subscribing to this doctrine ; and then reasoning by analogy, if it acts thus in peritonitis, it surely may do so in iritis.

I am also inclined to deny altogether the specific powers of mercury in this or any other disease. If I am right in what I conceive a specific to be, it is a remedy which never fails to cure a disease, and which said disease can never be cured by any other remedy ; its action must also be unknown. Now, for a long period of years, this remedy has been deemed

a specific in the cure of venereal diseases, as most of you know ; but it appears that that disease can be cured, and permanently cured, without one grain of mercury, as shown by the records of our army surgeons ; and, again, certain cases have been exasperated, but more particularly certain symptoms, as the phagedenic ulcer, have been rendered worse, by the employment of mercury : and in this disease (iritis), I set out with saying that there are many cases in which it would be improper ; there are many cases, likewise, in which it has failed : besides, this remedy has been employed, and with success, in many other besides syphilitic diseases, as simple iritis, peritonitis, hepatitis, &c. Having, therefore, as I think, destroyed, in some degree, its pretensions as a specific remedy, I will proceed to state that I think this medicine acts in the same manner, as almost all, if not all, our other medicines do, namely, by exciting counter-irritation. We are told that mercury shows that it is exerting its beneficial effect on the system when it has produced sore mouth, &c., and that, until this occurs, we need not expect lasting benefit from it : this is said to be showing its *specific effect* ; but, with all due submission to the holders of this doctrine, may not mercury cure the disease by the *counter-irritation* it produces in the mouth, the salivary and biliary glands ?—*London Medical Gazette*.

SARCOMATOUS TUMOR.

History of a Case of Sarcomatous Tumor of the Mamma—its Extirpation, &c. By N. HITT, M.D., of Vincennes, Indiana.

Vincennes, (Indiana,) November 10, 1831.

THE subject of this history is a Mrs. Holmes of this place, aged twenty-four years. The previous history she gave me of her affliction is as follows.

About twelve years ago, when her system commenced its expansion, she discovered her left breast gradually to increase in size, and to continue to grow after the system had received its ultimate development, giving her no pain and consequently no uneasiness or alarm, until after she was united in marriage to her present husband. During pregnancy, she thought it increased more rapidly ; and after she was delivered of her first born, its increase became more evident and alarming. A few days after the birth of the child, the gland had every appearance, as she thought, of having secreted milk, and was so much distended that medical advice was thought necessary and was obtained. The child was denied access to the enlarged breast, and stimulating applications prescribed with the view to suspend the secreting process.

About this time she thinks a redness appeared, circumscribed to about the size of a half crown, one inch to the right of the nipple ; which redness or inflammation soon gave place to suppuration, and discharge of a fluid, the color and consistence of which she does not now recollect. After discharging a few days, it entirely healed, and no perceptible change was discovered until the second accouchement. Between her first and second pregnancy, her medical attendant, she states, was as assiduous as unsuccessful in his endeavors to discuss the tumor, by the exhibition of

medicine internally and externally, until ptyalism was produced and continued for some time.

On Christmas last, she was delivered of her second and last child, when the tumor again resumed its progressive march, and by its accelerated action and unyielding disposition, produced in the mind of the patient the most awful apprehensions.

The following April I first saw her, having been called to relieve her of an attack of fever, at which time the tumor was shown to me as a curiosity. And, what will be thought surprising in a subsequent part of this history, the child was then applied to the enormous breast, which, from its magnitude, looked very unlike the mamma. I then had ocular demonstration of the fact, that secretion of milk was performed, and the child's healthful aspect itself proved it to be amply supplied with the pabulum of life. The tumor at this time was not particularly examined, as it was not requested.

I did not see the patient again until the first of July following. She was then much alarmed in consequence of a circumscribed redness, the size of a crown, appearing about four inches below the nipple, and which having subsided, left to the feel of the finger evident fluctuation. The external appearance of the tumor was smooth, uniform, and elastic, possessing but little sensibility and slight soreness on pressure. Upon pressing the sides of the tumor with the fingers, the internal structure imparted an uneven and irregular feeling. Its largest circumference measured thirty-two inches, and its base twenty-two; its supposed weight from fifteen to twenty pounds. It was supported by a bandage from the neck, assisted by the left arm and hand, which were constantly applied beneath it. None of the neighboring glands were implicated.

Considering the circumstances of the case, the age and comparatively good constitution of the patient, I gave an opinion that extirpation was not only advisable, but would be the only possible means of her salvation from an untimely grave. She did not fully determine to submit to an operation until the above opinion was corroborated by the opinion of several gentlemen now present, who did me the kindness to examine the tumor.

Her mind being fully made up, the 20th July was appointed for the operation. From an unyielding desire to undergo the painful ordeal among her nearest kindred, from which she could not be dissuaded, she was conveyed in a carriage twenty-two miles north of this place a few days previous.

Every preparation being made, my friend Dr. Somes and myself set off on the 19th, and on our way met an acquaintance just from the patient, who stated that nature had anticipated us and had performed the operation by the tumor's bursting and discharging.

We went on, however, and found the tumor collapsed, and still discharging gradually a fluid, the color and consistence of which resembled thick rich cream; and, judging from the vessels containing the fluid, and also the condition of her cloths, there must have been at least one gallon discharged.

The fluid had a pulpy feel, and peculiar smell, not offensive, however. The probe could be plied in several directions, and in some it was not

of sufficient length to determine its boundaries. The minds of the patient and her friends were much relieved, supposing the late occurrence would supersede the necessity of an operation ; and in vain did we endeavor to convince them otherwise. We deemed it useless to insist on an operation under existing circumstances, but contented ourselves with controverting the notion that its discharge was a sufficient reason to delay the operation, and told them it was probable she would be placed under less favorable circumstances for an operation when it would be absolutely necessary for one to be performed.

After expressing our views, we passed on to *Terre Haute*. While there our patient was taken with a remittent fever, and during the second exacerbation of fever the blood-vessels of the tumor gave way, and an alarming hæmorrhage ensued. A messenger was immediately despatched, and we were hurried back to the patient. July 26th, we found her much exhausted from fever and loss of blood, and still bleeding.

In consultation with Drs. *Somes*, *Davis*, *Ohowver*, and *Elliott*, it was agreed that an operation was the only possible expedient to save her from a speedy dissolution ; and that even that was extremely doubtful under existing circumstances ; such as her great debility, considerable fever, the quantity of blood she had already lost, her mind agitated with fearful apprehensions, and the tumor collapsed into a loose mass, all tending to an unfavorable prognosis. By the assistance of the above named gentlemen the operation was commenced in the usual way of extirpating cancerous breasts, by making two semicircular incisions, and dissecting back a sufficiency of the integuments to cover the exposed surface after the removal of the tumor. The tumor was then cautiously dissected from above downward ; great care being taken to tie the arteries as they were exposed. Thus the whole tumor was carefully and entirely removed, leaving the pectoral muscle bare. The patient was then laid on the bed to recover from syncope, the flaps lying open and the whole covered with lint.

I would here state that our patient was remarkably courageous, and bore the operation with a fortitude seldom witnessed in the most extensive operating theatres. She was supported by wine and water as occasion required. After she had somewhat revived, and finding no hæmorrhage on raising the lint, the flaps were properly adjusted and retained by adhesive straps. The compress and bandage completed the dressings. She was then cheered, encouraged, and congratulated, which elicited from her a smile prospective of returning health, and all faces beamed with gratitude and thankfulness for such a deliverance.

In a few days her fever subsided, the healing process commenced and kindly progressed. Three fourths of the flaps healed by the first intention ; and in three weeks from the day of operating, she returned to her domestic circle ; when three weeks more completed the entire healing of the wound.

Viewing her situation previous to the operation, when she was prostrate beneath the arm of disease, and to all appearance on the verge of dissolution, and seeing her now, reinstated to health, family, and friends, we cannot but consider this case a striking illustration of the powerful influence of our art in meliorating the condition of man, and a conclusive confutation of the vulgar prejudices entertained against it by some.

Dissection of the Tumor.—The tumor was opened by cutting through a thick capsule formed apparently of condensed cellular substance. On its surface next the skin the capsule firmly adhered. The substance of which the principal part of the tumor was composed, was made up of irregularly shaped masses, in color and texture somewhat resembling the masses which compose the pancreas, and appeared to be connected with each other by a fibrous substance of a looser texture.

A very small portion extending from the nipple to the clavical margin of the tumor, bore the appearance of healthy gland. This was half an inch thick at the nipple, and gradually increased in thickness as it ascended to the margin, and composed perhaps one twelfth part of the whole separate from the fluid. It is remarkable in this case, considering how small a portion of the whole mamma was in a healthy state, and shaped as it was, that milk was pressed from the nipple only two weeks previous to the operation.

The cavity of the tumor occupied its centre, extending principally below and three or four inches above the centre.—*Transylvania Med. Journal.*

IS PUERPERAL FEVER INFECTIOUS?

In a Letter to the Editor of the London Medical Gazette.

SIR,—The letter of Dr. Campbell on puerperal fever, which appeared in the Medical Gazette of December 10th, has recalled my attention to certain facts in my possession, calculated to throw some light on the query which heads this communication. At the present moment, when the laws of infection are the subject of eager and dubious controversy, the facts I shall adduce may possibly interest some of your readers.

“On the question of infection (Dr. Campbell observes) I am as much as ever impressed with the belief, that unless the practitioner has been engaged in the dissection of the bodies of those who have fallen victims, the disease cannot be conveyed by him from females laboring under it to others recently delivered; but if he have been so engaged, I have strong reasons for believing that he may be the means of propagating it.” My experience is not in unison with this conclusion. On the 4th of January last (1831), a meeting of the medical officers of the Manchester Lying-in Charity was summoned in consequence of a great mortality having occurred, during the four preceding weeks, among the patients of one of the midwives. The circumstances we found to be these: Mrs. A. B., a midwife in great practice among the patients of the Charity, had on the 4th of the preceding month (December, 1830) delivered a poor woman, who soon died with symptoms of puerperal fever. From this date to the 4th of January inclusive—exactly one month, this midwife delivered thirty women residing in different parts of an extensive suburb, of which number sixteen caught the disease, and all of them ultimately died. These were the only cases of puerperal fever which had for a considerable time occurred in Manchester. The midwives, commonly twenty-five in number, deliver, on an average, ninety women per week, which is about three hundred and eighty in a month. Now of this number delivered during the month in question,

none had puerperal fever except the patients of Mrs. A. B. Yet all this time this woman was crossing the other midwives in every direction, scores of the patients of the Charity being delivered by them in the very same quarters where her cases of fever were happening.

The following statement, transcribed from Mrs. A. B.'s day-book, specifies the dates of the deliveries of the women, discriminating those who took the fever :—

Deliveries.	Had Puerperal Fever.	Deliveries.	Had Puerperal Fever.
1830, Dec. 4, one	one	1830, Dec. 26, two	—
5, one	—	28, one	one
6, two	one	30, two	one
7,* four	one	31, one	—
18, three	two	1831, Jan. 1, four	two
22, one	—	2, two	one
23, one	one	3, two	two
24, one	one		
25, two	two	thirty	sixteen

The decision of the medical officers of the Charity was to the effect that Mrs. A. B. should abandon her practice for a short period, and go to the country. In a short time after this meeting, cases of puerperal fever among the patients of other midwives, as well as in private practice, began to appear in various parts of the town. In the course of the spring months a great number of women died of this fever. It never prevailed more generally, nor perhaps ever more fatally, in Manchester. By about the beginning of June it had disappeared.

The fact that sixteen cases of puerperal fever occurred in one month in the practice of a single midwife, while the patients of the other midwives were exempted from the disease, leads naturally to the conclusion that this midwife was the *medium* of communicating (I take not upon myself to say *in what manner*) the malady from one woman to another—from one affected with the fever to another in health ; for the reader will observe that the midwives always visit their patients during the first three days after the delivery, if doing well ; and for a longer period, if sick. Again, little more than half of the thirty women delivered by this midwife during the month before mentioned took the fever. On some days, all the women she delivered escaped ; on other days, out of three or four, one or more of them were seized. This is no way opposed to what is observable in the career of other infectious maladies, and may be explained by assuming that there is a difference in different women, and perhaps in the same women at different times, in regard to predisposition ; that the fever was occasionally conveyed *directly* from the diseased to the whole, I possess other evidence than I have stated. In one instance, within my knowledge, a practitioner introduced the catheter, in the case of a poor woman laboring under puerperal fever, late in the evening ; and in the course of the same night he had to attend a lady in her confine-

* Here an interval elapses of ten days without any deliveries having taken place—a circumstance which I can only account for by supposing, what is probable, that the midwife, in alarm, voluntarily suspended her operations.

ment a little way in the country. On the morning of the second day after delivery, this lady had a violent rigor, and the other early symptoms of the malady. In another instance, a surgeon was called while in the act of inspecting the body of a woman who died of this fever, to attend a labor : within forty-eight hours after being put to bed the woman was seized with the fever.

That, besides being infectious—that is, capable of being conveyed, in some tangible medium, from one woman to another—this disease is propagated by some cause of a more general kind, probably existing in the atmosphere, *after the fever has prevailed for some time in a locality*, cannot be doubted. Numerous cases occurred during the late epidemic in Manchester ; the origin of which could not, I apprehend, have been traced to infection properly so called.

The morbid appearances in our epidemic, resembled, in most respects, those mentioned by Dr. Campbell, as noticed by him in that of Edinburgh. Phlebitis, although diligently sought for, was not, that I am aware of, detected in a single case. Traces of inflammation of the peritoneum, generally slight, sometimes severe ; inflammation of the pleura, with effusion of serum into the chest, and softening and disorganization of the ovaria, were the usual appearances. In one case, which I inspected, there was great enlargement, thickening, and remarkable softening of the uterus, with other appearances indicative of putrefaction, such as greenness over the lower abdomen, about the pudendum, on the inside of the thighs and arms, and separation of the cuticle, as if it had been detached by a blister. This was the state of the body, exactly twenty-five hours after decease. The ovaria, I ought to have mentioned, resembled masses of venous blood. The patient, a woman of great vigor, was in perfect health on Saturday ; fell in labor on Sunday ; in the course of the night, while in labor, had a violent rigor, and began to complain of tenderness in the abdomen ; was delivered early on Monday, and died on Tuesday at noon. I am not aware that there were any other cases, during the epidemic, with symptoms and appearances similar to those of this woman.

The cases of puerperal fever, according to my observation, were resolvable into three classes : first, those, the most numerous certainly, in which no medical treatment was of avail, where the pulse was 140 and upwards, resembling, in the most striking manner, the pulse when rupture of the uterus has taken place in labor ; and where the heat of the surface never rose to the natural standard. Second, those where leeching, calomel and opium, blisters, and other counter-irritants were indicated, and occasionally proved successful. Third, those cases in which bleeding by the lancet, owing to the complete development of the heat of the body, the acuteness of local pain, and the distinctness and comparative strength and hardness of the pulse, was clearly indicated ; and which, when employed early in this variety of the disease, was almost uniformly successful. The last class of cases became more prevalent towards the decline of the epidemic. During the first two months of its prevalence, on the contrary, very few cases recovered. In consequence of the *kind* of persons attacked by the puerperal fever—mothers of families—the ravages of the disease are in the highest degree astounding and deplorable.

Those practitioners who have encountered the progress of this epidemic need not fear that they will find in the aspect and mortality of any other disease, although it may be of more famous name, features more formidable and success more disheartening. Yours, respectfully,

JOHN ROBERTON.

Manchester, December 15th, 1831.

HEMICRANIA.

On one of those Affections designated Migrane (Megrim), or Hemicrania. By M. PIORRY, M.D.

THE foregoing subject occupies some twenty pages of M. Piorry's late work. The author observes that, under the term, hemicrania, authors have arranged several different disorders. Chaussier and his followers have pronounced it a neuralgia of intermittent or continued character, and of greater or less intensity. The author agrees with this opinion; but observes, that hemicrania cannot always be considered as a facial neuralgia. It differs, he remarks, materially from tic douloureux, and also from the pains occasioned by carious teeth. If, indeed, says he, we understand by the word hemicrania, a pain seated on one side of the head, almost all neuralgia of this part must come under the designation, since few of them attack more than one side of the body, or pass the median line. But if, by hemicrania, we mean a specific affection, having its seat in or near one of the eyes—differing from all the other neuralgiæ—followed by sickness and generally relieved by vomiting—ceasing after a single paroxysm, not to return for a considerable time in general—then we must separate hemicrania from the other neuralgiæ with which it has hitherto been confounded, in order to study its symptoms, its signs, and its treatment. The author affirms that he has paid great attention to this disease—and thinks that investigation of it throws some light on the neuroses in general.

The complaint in question is conceived by the author to be a neurosis, or rather a neuralgia of the iris, which, at first bounded to that membrane, or, more properly speaking, to its nerves, extends to a number of other nervous branches, and is characterised by disturbance of vision, succeeded by pain in the eye, or on the surface of the cranium, by sickness, and by vomiting. This ophthalmic neurosis is observable among people whose sight is weak, to whom strong light is disagreeable, and dark rooms pleasant—who study and write much—who lead a sedentary life—and among workmen who are much occupied with the inspection of minute bodies.

On the other hand, we rarely see this complaint in people who lead an active life in the open air—who are habitually exposed to a strong light—and who do not exercise the eyes much. It occurs chiefly, according to the experience of the author, under two opposite conditions of the stomach—a state of too much repletion, and too great abstinence. In people, in these conditions, a very slight exertion of the eyes will often bring on the ophthalmic neuralgia. A physician of the author's acquaintance generally experienced an attack of this complaint every time

that he read a lecture on medicine. Whenever he left off lecturing, or at least the reading of his lectures, he ceased to have the hemicrania ; and whenever he resumed the avocation, the disorder returned. It was remarked that these lectures were delivered on a full stomach directly after dinner.

The hour of attack, however, is not confined to any particular period—sometimes immediately after the application of the exciting cause—sometimes not till after several hours, but generally within the twenty-four hours. At the moment of the invasion, the sight becomes less clear, and there appears a kind of black speck in the centre of the eye, which gradually enlarges and spreads to the other parts of the organ, still partially surrounded by the arc of a luminous circle, of different colors in different individuals. After a time, this dark centre and sparkling circle begin to grow less distinct, and at last break up and disappear, with return of vision. These phenomena rarely take place, except in one eye. Thus far there is no pain experienced ; but only a kind of stupor, with some derangement of vision and heaviness of head. But after a longer or shorter interval, some darting pains are felt in the eye and temple, and the least pressure on the ball of the eye causes much suffering. The patient complains that the globe of the eye feels too full, attended with pulsation of a dolorous kind. These sensations are not uniformly pungent, but remit and exasperate, like colic or spasmodic pains in other parts. The duration of these attacks varies from some hours to two or three days.

Meantime the senses of hearing, tasting, and smelling, are more or less deranged with that of sight. The eyelids become red and tumefied—the access of light is insufferable—the least noise offends the ear—and the taste for food is quite perverted. The sensorial functions are undisturbed ; except that there is a greater tendency to sleep than usual.

Such are the phenomena of cases the most simple ; but very frequently the stomach participates in the complaints of the eye. Soon after the ophthalmic symptoms commence, eructations from the stomach take place, followed by some nausea, and even by vomiting of the food lately taken, or, if empty, of glairy mucus. In severe cases the stomach is not the only organ which sympathizes with the eye. Often one side of the tongue or of the face, or one of the upper or lower extremities, experience a kind of painful tremor or vibration, like that which is felt after striking the cubital nerve, at the elbow, against some hard body. In general, the heart, lungs, and intestinal canal, remain free from any morbid affection. A restorative sleep usually terminates the paroxysm, after several hours', or two or three days' duration. A heaviness of the head is felt for a day or two after the cessation of the hemicrania. The recurrence of the malady is uncertain ; and generally only when the exciting causes are strongly applied. Our author knows a female who has six months' interval between the attacks, provided she does not read within two hours after taking food. If she uses not this precaution, she is sure of an attack immediately after her transgression. In certain individuals the attack is periodical, returning every eight days, every month, or every two or three months, with considerable regularity. In others, there is no fixed period for relapse.

The prognosis in this curious complaint, is generally favorable, as far as life is concerned ; but if the complaint proves rebellious, it renders life miserable. When it fails to be cured, the paroxysms return at shorter and shorter intervals, till life becomes one scene of suffering. Our author has not been able to find any information respecting the pathological anatomy of hemicrania ; but suspects that the scalpel will not reveal any lesion of structure in the brain or membranes to account for the phenomena. This neuralgia, he imagines, is too fugitive, subject to too many remissions or intermissions, to leave organic traces that might be detected by the eye. He justly observes that the dissecting room is not the only place where we may study pathology. The sick-room will often afford us much useful information in this respect. An examination of the eye, during the attack of hemicrania, shows the pupil strongly contracted, and consequently the iris put upon the stretch, with redness of both palpebræ. From these phenomena M. Piorry concludes that, in hemicrania, an exciting cause acts on the retina and iris—the nervous action is modified—a kind of struggle takes place, evinced by oscillations and vibrations, with the luminous circle, dark spots, &c. before alluded to. In time, the fifth pair of nerves participate in the morbid action, and ultimately other organs and parts with which the fifth pair communicate.

TREATMENT.—Our author considers himself as very successful in the treatment of this painful malady. His first indications are to arrest the development of the series of symptoms constituting hemicrania—and to mitigate its accessions (*calmer ses accès*). It is at the moment of its commencement that the course of the malady is most easily checked. At this period all causes of excitation in the optic nerves and tissues should be removed. The patient is to be completely excluded from light and noise. This abduction of all stimulus will sometimes induce early sleep, and check the paroxysm. It is at this early period that the application of belladonna has occasionally succeeded in preventing the pain. The author and his colleague, M. Trousseau, cause the remedy to be rubbed on the temples with the greatest success. M. Piorry dilutes the belladonna with a little water so as to form a kind of syrup, which is rubbed on the palpebræ as well as on the temples. The author uses only a very small quantity of the remedy, from one to three or four grains. He avers that he hardly ever fails to check the paroxysm by this means. It is to be borne in mind that, on the succeeding day after the application of the belladonna, the pupils will be greatly dilated, and vision disturbed. But this effect and inconvenience are only temporary. The author has not employed belladonna internally. He has used opium, but with very indifferent effects. M. Piorry observes that the march of hemicrania may often be arrested by raising excitement in the stomach, by means of stimulants, as wine, spices, food, &c. A very smart stimulation to the feet will sometimes have the same effect. In case of failure, each symptom can only be combated by the most probable means. Quietude and darkness—cold applied to the eye affected—vomiting by means of large ingurgitation of warm water, will mitigate the pain, and somewhat curtail the paroxysms.

The prevention of a return then becomes the great indication. The causes already enumerated are to be avoided, and especially all exercise

of the eye in reading during the operation of digestion. After this process is finished in the stomach, the patient need not fear to engage in study or other exercise. Exposure to a strong light, however, and sudden transition from a dark to an illuminated room, are dangerous. Sometimes a local plethora predisposes to hemicrania; then abstraction of blood is proper. On the other hand, where the patient leads a sedentary life, and is debilitated, we ought to prescribe nourishing food, which is the best of all tonics. Great attention to the bowels is necessary, since constipation often renews the attack. It is remarkable that the author appears to have had but little experience of the efficacy of quinine in this complaint—and of arsenic he makes no mention at all. Yet these are the most potent of all remedies in the disease under consideration. We have met with the complaint very often—indeed, it is by no means unfrequent in this metropolis, among artists and others who lead a sedentary life, using the eye much, and the muscles of the body little. In these people, we have first cleared the bowels, and then given a sudorific at bed-time, with a good dose of colchicum and Batley's liquor opii sedativus. After this the quinine, arsenic, or both united, have seldom failed to put a sudden stop to the complaint. Quinine in small doses, for some weeks afterwards, is necessary to prevent relapses.—*Med.-Chir. Rev.*

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, MARCH 21, 1832.

ALLEGED MAL-PRACTICE.

THE following notice appeared in the Litchfield (Connecticut) Enquirer of Thursday last.

“The Superior Court of this County, Judge Daggett presiding, closed its sessions on Tuesday night last, after an arduous session of fifteen days. Besides the criminal trials, there was a number of civil cases disposed of, among which was the following:—

“*Harriet A. London vs. Dr. Asahel Humphrey.*—This was an action for mal-practice in performing the operation of vaccination upon the left arm of the plaintiff, in March, 1829. It appeared that the defendant and sundry other physicians had made a contract with the Board of Health of the town of Salisbury, to vaccinate the inhabitants of that town—that the physicians divided the town into districts to enable them to perform with facility the duty assigned them—that the plaintiff resided in the district confined to the care of the defendant; that the defendant employed one Rollin Sprague, a young student of medicine, to attend to the business for him as his agent, and that Sprague vaccinated the plaintiff, and made two punctures just above the elbow joint in a very unusual place—the effect of which was immediate, and was attended with the most serious consequences, indicating, in the opinion of Professor Hubbard and others, with unerring certainty, that a nerve had been wounded. It was proved that the injury was probably incurable. The case underwent an elaborate investigation, and the jury rendered a verdict for the plaintiff—\$400 damages.”

The foregoing case and decision are calculated to excite the astonishment of every medical man. It is unquestionably the only case of the kind on the records of any court in any portion of the civilized world. The process of vaccination is and has long been performed by parents ignorant of physic or anatomy, on their own children, by officious women, itinerants, and people of almost every grade of ignorance and carelessness, and yet never have we heard of a single instance in which harm has come of the incision. Nor can we conceive in what way the case above noticed could have been made out. The puncture for vaccination is made merely through the cuticle, so as to admit the matter to the mouths of the cutaneous absorbents : how it could have been carried deep enough to injure any important nerve, is matter of surprise, and we confess ourselves somewhat incredulous of the justice of the decision. It is to be hoped that a proper and detailed report of the case will soon be furnished to the medical public.

The New Styptic.—MM. Talrich and Halma-Grand deposited at the Academy of Sciences, in Paris, on the 26th September, a sealed packet, containing the composition of their liquid for arresting hæmorrhage. It is to be opened as soon as a series of experiments now in progress have been completed. The following is an account of some of these trials. Fifteen sheep have publicly had the carotid artery opened : four lengthways, nine across, and two with an oval portion cut out. In all of these the bleeding was arrested in four or five minutes, and the cicatrization completed in a few days. The same result was obtained on the horse whose carotid was opened a few days ago in the abattoir at Montfaucon. In order to stop the bleeding, dossils of lint, steeped in the fluid, are applied with some degree of pressure, and afterwards suffered to remain there. The writer in the French journal from which we take these particulars, says that he was very lately called to a young gentleman, who had had copious bleeding for twenty-four hours, in consequence of having had a tooth extracted from the lower jaw. Various approved methods had been tried without avail, and the actual cautery was just about to be had recourse to, when it was determined to give the styptic of MM. Talrich and Halma-Grand a trial. In seven minutes the bleeding was completely stopped.

A correspondent informs us, that the styptic above alluded to has been tried at St. George's Hospital. The carotid artery of a sheep was opened by means of a longitudinal incision, about two lines in length ; dossils of lint were applied, and covered with compresses, which were retained in their place with some firmness for about a quarter of an hour ; they were then removed, the lint being suffered to remain. The animal was set at liberty, and no bleeding occurred. At the end of some days it was slaughtered. On examining the parts, great extravasation of blood was found in the cellular texture round the vessel, while itself contained no clot.

In consequence of a circular letter of invitation, a considerable number of persons assembled to witness some farther experiments. The first consisted in laying bare the carotid artery of a sheep, and cutting out a portion of it with a curved scissors. Portions of lint, about the size of a small walnut, steeped in the styptic, were applied to the wounded vessel, the first being kept steadily in its place for ten minutes, and two or three others successively laid over it, the whole process occupying a quarter of an hour. The animal was then unbound, and suffered to rise, when the

lint was instantly thrown out, and the animal bled to death. In another the carotid artery was cut across to the extent of about half its calibre, and then treated as above, with the addition of a stitch, to retain the lint in its place. No hæmorrhage followed; the stitch and lint were removed next day, and the animal appears to suffer little inconvenience.

Value of the Blood in Diagnosis.—Sir Astley Cooper gives us a valuable lesson in the following case: A man in Guy's Hospital, in the last stage of scurvy, whose skin would ecchymose from the slightest pressure, and from whose gums blood was oozing, was bled, (a little being taken as an experiment,) and even the blood was both sisy and cupped!

New Treatment of Painter's Colic.—A French Physician, M. Gendrin, has found this disease to yield with unusual facility to the free internal administration of alum. He has reported to the Institute the result of his trial of this practice in fifty-eight cases, all of which were cured by it. He administered from one to three drachms a day, in solution, and found it more efficacious when, at the same time, his patients drank freely of water acidulated with sulphuric acid.

Removal of the Lower Lip.—This operation was performed on Thursday last, at the Massachusetts General Hospital, by Dr. George Hayward. The occasion of the removal was a cancer, which had become so diffused as to involve the integuments to such an extent that the edges of the wound could not be approximated. The diseased parts were taken away with little hæmorrhage, and the patient bore the operation well.

Whole number of deaths in Boston for the week ending March 16, 29. Males, 14—Females, 15.

Of scarlet fever, 5—childbed, 1—disease of the heart, 1—consumption, 5—paralytic, 1—
inflammation on the brain, 1—dropsy, 1—lung fever, 1—drowned, 1—measles, 1—brain
fever, 1—inflammation on the lungs, 1—hip complaint, 1—throat distemper, 2—putrid sore
throat, 1—old age, 2—croup, 1—unknown, 2.

ADVERTISEMENTS.

HISTORY OF THE CHOLERA MORBUS.

Just published by CARTER & HENDEE, a Medical and Topographical History of the Cholera Morbus, including the mode of Prevention and Treatment, by SCOTTETTEN, adjunct Professor at the School of Medicine at Strasburg, member of the Royal Academy at Metz, &c. &c., with a Report read at the Royal Academy of Medicine at Paris, Sept. 17, 1831. Translated from the French, by A. SIDNEY DOANE, A.M., M.D. m14

REPORT OF THE ROYAL ACADEMY OF MEDICINE to the Minister of the Interior, upon the Cholera Morbus, published by order of the French Government. Translated from the French by JOHN W. STERLING, M.D. Just received by CARTER & HENDEE. March 14.

A DICTIONARY OF MEDICINE, designed for popular use. By Alexander Macaulay, M.D. Second English edition. Just received by CARTER & HENDEE. March 14.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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WEDNESDAY, MARCH 28, 1832.

[NO. 7.]

ABSORBENT GLANDS AND SPLEEN.

On some Morbid Appearances of the Absorbent Glands and Spleen.
By D. HODGKIN.

IF there be any accounts in books relative to morbid alterations of structure like those about to be described, they can be but little known ; the author knows of none, and there is the more room and apology for the present observations.

1. The first case deserving of notice is that of Joseph Sinnott, nine years of age, a patient in Guy's Hospital, admitted laboring under ascites and effusion into the prepuce and scrotum.

Inspection.—Serous effusion under the arachnoid and within the ventricles. Substance of the brain soft and flabby. Pleura much affected with adhesions ; fluid in the cavity. A few tubercles in the lungs. Heart healthy. Peritoneum had been recently and extensively inflamed ; a sero-purulent effusion in the cavity. Viscera overlaid generally with a soft light-yellow coagulum. The mesenteric glands enlarged—one or two considerably so, equaling in size a pigeon's egg, of semicartilaginous hardness, and streaked with black matter. Liver pretty natural. Spleen large, and containing numerous tubercles. Kidneys mottled, of a light color. A continuous chain of much-enlarged, indurated, absorbent glands, accompanied the aorta throughout its course, closely adherent to the bodies of the vertebræ, and extending along the sides of the iliac vessels, so far as they could be traced in the pelvis ; none of these vessels had been sufficiently compressed to occasion a coagulation of the contained fluids.

2. The next case is that of Ellenborough King, aged ten years, a patient of Dr. Bright. Until thirteen months ago this child had been healthy ; a tumor was then observed in the left hypochondrium, which, under treatment, was very considerably reduced ; the glands on both sides of the neck were swollen, the abdomen was somewhat distended, and there was considerable œdema of the scrotum.

Inspection.—The glands in the neck, when cut into, exhibited a firm cartilaginous structure, without any appearance of softening or suppuration. The glands of the vessels in the chest were in the same state. The lungs generally healthy ; there was a considerable quantity of fluid in the peritoneal cavity. The glands accompanying the aorta, the splenic

artery, and the iliacs, were as those of the neck. The spleen was enlarged to four times its natural size, studded with tubercles, and presenting the same structure as the glands just mentioned.

3. William Burrows, aged 30, admitted for scrofulous ulcer in the axilla and neck; had been previously in the hospital for secondary symptoms, which were supposed to have been treated with large quantities of mercury. Before he died, abdominal dropsy had made its appearance.

Inspection.—The cavity of the chest contained about a pint of serum. Heart small and flabby; the liver of a shrunken, irregular shape, indurated, pale, and pervaded with a substance of a white, hard, tuberculous character. It appeared to Dr. Hodgkin, that the liver was in that state which is almost peculiar to those who have labored under a cachectic condition from mercury. The spleen twice its usual size, unusually firm, and, when cut into, exhibited a dense, dark-red, homogeneous structure. Some of the mesenteric glands much enlarged, and filled with white deposit; almost all the other glands of the trunk were similarly affected.

4. Thomas Westcott, aged 50, presented a great enlargement of nearly all the absorbent glands within reach of examination, but more especially of those in the axilla and groins.

Inspection.—The glands of the axilla proved the larger the deeper they were seated; when cut into, they appeared of a light white color, with very few vessels; in consistence, they very much resembled fungoid tumors. The glands in the groin of a similar character; the alteration in this case seemed to consist rather in an interstitial deposit, from a morbid hypertrophy of the glandular structure itself, than of a new or adventitious growth. The glands about the abdominal aorta and iliac arteries were as those in the preceding cases. Liver very large. Spleen at least nine inches long, five broad, and proportionately thick; its structure consisting of an almost infinite number of small white globules, appearing to arise from deposits in the cellular tissue of the organ.

5. In the next case, which was that of a middle-aged man, the last urgent symptoms were referable to the chest.

Inspection.—The glands of the neck, and those near the upper part of the thyroid cartilage, were very much enlarged. The pleuræ exhibited traces of recent inflammation. A large quantity of serum in the abdomen. The liver remarkably large, weighing upwards of seven pounds; the acini somewhat enlarged, but not fatty, as it was at first supposed. Spleen four or five times its natural size, but it contained no tubercles; the cellular tissue, however, was more conspicuous than usual in the intestines of the parenchyma. The absorbent glands about the aorta were all enlarged; some of them the size of a pullet's egg.

6. Thomas Black, aged 50, was affected with swellings of the neck and axillæ; his abdomen was greatly distended, and his breathing difficult. On examining his body, in both chest and abdomen the absorbent glands about the great vessels were enormously enlarged.

The enlargement of the glands, both in this and the preceding cases, appears to have been a primitive affection of these bodies, rather than the result of an irritation propagated to them from some other inflamed structure. Their enlargement is unattended with pain, heat, or any of the other symptoms of inflammatory action: nor is it accompanied by

any alteration in the surrounding tissues, or by a disposition to the production of pus. Notwithstanding the different characters which the enlargement in question may present, it appears nearly in all cases to consist of an uniform texture throughout, rather the consequence of a general increase of the whole gland than of a new structure displacing the original one, as is the case when ordinary tuberculous matter is deposited in these bodies.

The state of the spleen, too, is very remarkable, inasmuch as in all the preceding cases but one, it was found diseased, and in some of them thickly pervaded with bodies in structure resembling the diseased glands. Now, although in human spleens no glandular tissue is distinguishable, in those of some inferior animals a multitude of minute bodies exist, which appear to be of that nature. Malpighi, indeed, considered the acini of the spleen to be glands. And Dr. Hodgkin conceives, that if there be, as there appears to be, a close connection between the derangement of the glands and that of the spleen, the latter is a posterior effect, and thus may not always have been produced before the patient is carried off. In further confirmation of this view, he appeals to the pathological collection of Dr. Carswell, among which, having accidentally found a drawing of an immense spleen, loaded with tubercles, like those above described, he was agreeably surprised by the sight of another drawing, of greatly enlarged glands of the neck, axilla, and groins, from the same subject. Dr. Carswell called it a case of cancer cerebriformis of the glands and spleen, and his account of it was to this effect :—The man in whom the morbid appearances were found, had been a patient at the Hôpital St. Louis, Paris. He was between 30 and 40 years of age, and had these glandular swellings apparently for three or four months, without pain, and with little inconvenience. But a short time before his admission he felt a difficulty in swallowing, which had at length come to that height that he could take no food whatever. He lived only two days, in great suffering. Here an account of the examination of the body was given from Dr. C.'s notes, and intended to be illustrated by his unrivaled drawings ; but owing to an accident the latter had not come to the society. The account tallied most exactly with Dr. Hodgkin's observations already given ; but the Doctor did not agree with his friend Dr. C. in applying to these enlargements the appellation of "cerebriform cancer." In one case, indeed, Dr. Hodgkin had likened the growths to fungoid structures, but a closer examination detected abundant difference.

Besides the preceding instances from the dead, the author has met with similar examples of diseased or altered glands among the living. A Jew, between 40 and 50 years of age, came under his observation with the glands of the neck prodigiously enlarged, forming smooth ovoid masses, unaccompanied by inflammatory symptoms or thickening of the surrounding cellular structure. Those of the axillæ and groin were in the same state. There was no appearance of dropsical effusion about him. In another case, that of an emaciated child, an out-patient of Guy's Hospital, similar appearances were observed.

In conclusion, Dr. Hodgkin confessed that he had nothing to offer with regard to treatment, either curative or palliative. Most of the patients had only sought relief when the disease had reached an advanced

and hopeless stage ; and in the case of the Jew, the cascarilla and soda, and the iodine, appeared to be productive of no advantage. At an earlier period of the complaint, the indications would seem to be, to increase the general vigor of the system, to protect them from exposure to cold and inclement weather, to employ iodine externally, and internally to push the use of the caustic potash as far as circumstances might render it allowable.—*London Medical Gazette.*

BRONCHIAL AFFECTIONS OF CHILDREN.

On the Treatment of the Bronchial Affections of Children. By MARSHALL HALL, M.D. F.R.S.E. &c.

I HAVE seen so many deplorable results from the undue employment of bloodletting, and so many happy effects from the use of ipecacuanha in emetic doses, in the bronchial affections of children, that I think it highly important to bring these two subjects before the profession.

According to my experience, bloodletting is ill borne in the bronchial affections of infants. The little patients soon become pale, with glossy cheeks, half-closed eyelids, slight torpor, and a very frequent pulse.

With these symptoms, the bronchial affection is frequently little or not at all improved. There is an undiminished tracheal and diffused bronchial rattle, and frequently a husky voice and croupy cough.

Such cases have been particularly frequent recently. One of the most interesting which I have witnessed, occurred in the little infant of Mr. Wright, surgeon, Howland street, four months old. One leech only had been applied, but it had blanched the countenance, and induced the peculiar waxen hue of the cheeks, so significant of exhaustion. There was slight torpor, and the eyes were only partially closed. There was unrelieved diffused bronchial rattle, and an alarming croupy cough. Further depletion was inadmissible. The case was treated by five-grain doses of ipecacuanha, in the manner about to be described, with the most marked immediate benefit and the happiest result.

In another case, of an infant six months old, in which four leeches had been applied, the pulse had risen to 190 ! A truce from exhausting measures *permitted* the pulse to subside. The infant recovered without the further detraction of blood.

My object, however, is not to detail cases, but to give the general result of my experience. This is, that bronchitis in children neither bears nor requires much bloodletting ; and that such bloodletting is not the remedy for bronchitis.

On the other hand, the good effects of repeated emetic doses of ipecacuanha are so striking and so immediate as to leave no doubt of the efficacy of this remedy in this particular case.

In the first place, the mere effect of vomiting, which is first an effort of expiration, and finally full expiration itself, relieves the upper parts of the bronchial tubes of the accumulated mucus.

In the next place, the effect of nausea in subduing the powers of the circulation, and especially of the capillary circulation, is quite remarkable, whilst this effect, being unattended by exhaustion, is totally free from danger.

It is probable, too, that ipecacuanha produces an effect upon the bronchial membrane similar to that observed on the skin. The secretion of mucus succeeds to a state of dryness, and the mucus itself is of less tenacity and easier of expectoration.

However, the rationale apart, I may give the result of my experience in general terms, and say that of all our remedies for bronchitis in children, repeated emetic doses of ipecacuanha, after moderate bloodletting, is the most efficacious. In little infants, five grains may be given and repeated every three, four, or six hours. The dose must generally be augmented to ten or fifteen grains, especially in older children.

To the ipecacuanha I have always added castor oil, in the intervals of sickness.

Blisters and fomentations to the chest are also highly advantageous.

But the principal object of my present communication is to point out the danger and inefficiency of bloodletting, and the extreme value of ipecacuanha, in this particular disease of children. Bloodletting, to be safe, must be administered cautiously. The ipecacuanha, to be efficacious, must be administered in fuller and more repeated doses than those generally prescribed. I have repeatedly known a single emetic dose of ipecacuanha subdue a recent bronchitis; and I have known repeated doses subdue the most inveterate. These repeated doses are not attended by the slightest risk. Let the nausea and the vomiting subside, and the disease will frequently be found to be perfectly removed, whilst the powers of the system are unimpaired. Few remedies of such powers are so free from danger, in the feeble and tender age of infancy. If the disease be obstinate, the remedy may be repeated until it *does* prove efficacious.—*lb.*

SCALDING OF THE THROAT.

A Case of Scalding of the Throat, in a Child, from drinking boiling Water, cured by opening the Jugular Vein. By MR. G. O. HEMING, Member of the Royal College of Surgeons.

MR. EARLE's interesting lecture has brought to my mind a case of the croupy affection, induced in children by drinking hot water, in which the use of bloodletting was distinctly and eminently advantageous. It may, therefore, form a useful addition to the cases placed on record by Dr. Marshall Hall, Mr. Stanley, and Mr. Earle.

John Noyes, aged two years and a quarter, was brought to me, about five months ago, by his father, who stated, that, seven hours previously, he had drunk some hot water from a tea-kettle.

The little boy was breathing with much difficulty, and the sound produced by respiration was similar to that which takes place in croup. There was an incapability of swallowing, and he seemed to suffer great pain.

I bled him from the jugular vein, to a state approaching syncope. The breathing instantly became considerably relieved. A cold lotion was recommended to be kept constantly applied to the throat, and, as he could not swallow, an injection was given to act upon the bowels.

Four or five hours afterwards I went to see him, accompanied by Dr. M. Hall (whose paper on the subject I had read some years before, in the Medico-Chirurgical Transactions), with the expectation that the child might require the operation of tracheotomy ; but we were agreeably surprised to find that, since the bleeding, the respiration had progressively improved, and the peculiar noise had entirely subsided. The little patient was quite well in a few days.

I would here just remark, that I have seen many cases of croup—one within the last few days—where leeches had been numerous and repeatedly applied without affording any relief ; but the good effect of taking blood from the jugular vein to approaching syncope, was evident immediately, and apparently saved the lives of the little patients. From the case related by Mr. Earle, it is quite evident how serviceable the loss of blood may be in such cases ; as even the application of the leeches arrested the disease and afforded temporary benefit. In croup, the loss of blood is borne well, and one might suppose that the sensibility of the stomach may be in some degree diminished, as it requires larger quantities of ipecacuanha, or emetic tartar, to produce vomiting in this disease. This observation in regard to emetics, is also applicable to bronchitis in children.—*Ibid.*

For the Boston Med. and Surg. Journal.

REMARKS UPON MALIGNANT CHOLERA.

“*Malignancy is a state of the system in which there is a peculiar deficiency of vitality, attended with an insusceptibility to the curative action of ordinary remedies, in ordinary doses and quantities.*” — [American Medical Recorder, April 1828, page 292.]

IF this definition of malignancy is correct, it would seem that there could be very little difficulty in accounting for the excessive mortality which has occurred both in Asia and Europe, during the prevalence of epidemic cholera. There is certainly a very striking analogy between the *cholera* of the eastern continent, and the *typhus syncopalis* which at various times, during the last twenty-six years, has prevailed in many parts of New England, and in other States. Whoever will consult Dr. Thacher's Modern Practice, and the Philadelphia editions of Gregory's Practice, as well as Dr. North's Treatise on Spotted Fever, and various practical works to be found in American pamphlets and periodicals, will soon be convinced, that the two diseases must either be varieties of the same species, or more probably species of the same genus, requiring obviously the same treatment in general, though unquestionably demanding variations according to particular circumstances. It is therefore proper to ascertain what has been the most successful treatment of American practitioners, in their disease. With the utmost confidence it may be stated, that in no instance has an epidemic of *typhus syncopalis* been successfully treated, except upon the principle mentioned in the preceding definition of malignancy.

From the first appearance of *typhus syncopalis*, at Medfield, in 1806, (then called *spotted fever*,) it was discovered, that ordinary remedies,

in ordinary doses and quantities, would make no impression upon a bad case. Opium, essential oils, capsicum, aromatics, musk, alcohol, ether, external heat, rubefacients, epispastics, &c. if of any avail, must usually be employed in perhaps three or four fold frequency and quantity beyond what they are demanded in common complaints. The success of this energetic treatment, notwithstanding such a formidable disease must always be attended with some fatal cases, has been so great, that typhus syncopalis has now lost most of its terrors. Nine cases out of ten, and in many instances a much greater proportion of the patients, ultimately recover. It is believed, judging from the aggregate of the returns as far as received, that about a third of all the cases of cholera, during the present epidemic in Europe, have terminated fatally. If the statements which I have seen of the general practice are correct, and fair specimens of the ordinary treatment, the wonder is at the recoveries, and not at the comparative mortality. It is very evident, that a much greater proportion of the American cases would have failed, under such a relatively inert management as that directed by the most distinguished European writers, in their present epidemic.

It is unnecessary here to enter into further discussion of the subject. It is hoped that our physicians will consult the works which have been mentioned, and the other various essays which are referred to in those compilations. Those physicians who have been familiar with typhus syncopalis, pneumonia typhodes, and other malignant diseases, in their most sinking and malignant forms, can certainly be in no doubt as to the kind and degree of practice which is demanded in epidemic cholera. They must all have repeatedly seen cases as rapid and severe, which would have undoubtedly proved equally fatal, had it not been for an extremely active, energetic, and persevering treatment. **CELSUS.**

A CASE OF HEMICRANIA.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—The remarks contained in your last on that singular affection of the head most commonly known by the name of hemicrania, called to my mind a case that I had recently under treatment; a case that presented few if any of the symptoms there enumerated, but which may yet be denominated a species of hemicrania.

A young lady offered herself as a patient, from whose general appearance her errand would never have been suspected. Though not of a sanguine temperament, her complexion was florid, and her countenance and general appearance were those of perfect health. The bowels were in good order, and all the functions seemed to be unimpaired. Her complaint was a severe pain, frequently recurring, on the whole left side of the head. It usually came on at night, and was not confined to the seat of any nerve, but equally diffused over the whole side of the cranium. The pain was usually severe, steady and not by fits, lasted about an hour, and then went off without treatment, leaving the parts, and the upper extremity of the same side, in a state of numbness that generally yielded to friction.

These paroxysms would often occur in the day time, but most frequently in the night, and they produced no permanent impression on the general health. The pulse was full and slow—the tongue not coated, but of a dirty brown color—the appetite tolerable, but not so much less than usual as to have excited observation—and her habits were sedentary.

In this instance, as I believe in most others, the hemicrania was wholly symptomatic of disorder in the stomach, was thoroughly and permanently cured by a powerful emetic, followed by a dose of compound infusion of senna and gentian, and a short course of tonics. It was not thought advisable to trouble the patient with blisters or narcotics; and as far as my experience goes, in most forms of neuralgia, medicines of the latter classes are less serviceable than those of the former. The stomach is an organ that ought in all cases to be *suspected*,—it will be found to be the true though skulking offender in nine cases out of ten.

Boston, March 20, 1832.

M. D.

BOSTON MEDICAL AND SURGICAL JOURNAL.

B O S T O N , M A R C H 28, 1832.

VACCINE VESICLE.

THERE is great variety in the size of the vaccine vesicle in different cases, and also in the quantity of limpid virus that may be obtained from it. It is probable that this depends, in a measure at least, on the manner in which the process of inoculation is conducted. An extensive incision, and the introduction of an abundant dose of fresh matter, are usually followed by a large and full vesicle, whilst the eruption produced by a minute opening will generally be small. In Edinburgh, where a vaccinating lancet with a rounded extremity is in common use, we have remarked that the vesicle is of greater dimensions than in other places where the puncture is made by a needle or common bleeding lancet; and we know of no other reason than this for the difference alluded to. It may be also owing, in some degree, to the freshness and the liquid and consequently diffusible state of the matter; for our observations there were made in the Dispensary, where, a certain day in each week being set aside for this business, the virus is transferred *immediately* from the vesicle on one child to the arm of others.

When it is an object to produce an abundance of fresh virus, therefore, as is the case in times of alarm, or of general vaccinations, we should advise that the cuticle be raised over a surface larger than usual, and the matter inserted in a liquid state. If fresh virus is not attainable, a thin paste made with warm water and the scrapings of the concave central portion of a circular crust, will answer equally well.

Dr. Howison, vaccinator to the Edinburgh Dispensary, has recently

advanced the opinion that the true vaccine vesicle is not necessarily circular, as has been supposed, or of any other uniform figure. Its shape depends, so far as his experience has gone, and it has been ample, on the shape of the incision; and, says he, if a scratch were made wholly round the arm, and the matter there deposited, the vesicle would be annular, and still genuine and effectual. So far as extreme cases go, Dr. H. is doubtless correct. We apprehend, however, that there will always be found a strong tendency to the circular figure, and unless drawn from it by extravagant deviations in the bed, the true disease will always be such as we are accustomed to see it on the arm, and to find it described and represented in books.

PUBLIC VACCINE INSTITUTION.

WE are happy to announce that a Vaccine Institution is established in this city, where the poor may obtain protection from the smallpox *gratuitously*, and the faculty, in town and country, an abundant supply of fresh virus, on the same liberal terms.

Various propositions have been made from time to time, with a view to extend this invaluable blessing to the poor, and to ensure a constant renewal of the virus. That which is now adopted by the City Government originated with the Boston Medical Association, which urged the plan on the proper authorities more than a year ago. It is calculated, better than any other, to accomplish the important purposes of such an institution in a vigorous and economical manner; and although at the expense and by direction of this city, its benefits are offered, without fee or reward, to the Practitioners and people of every portion of the Commonwealth. The daily number of applicants for vaccination is already considerable, and the matter taken each day is deposited in a separate phial and labeled, by Dr. Smith, under whose care, as Resident Physician, the conduct of the institution has been placed. Now that the source of virus is abundant, and accessible with so much facility, we would suggest to Town authorities in the various parts of the Commonwealth, the expediency of a general vaccination of all their unprotected inhabitants. That the regulations of the establishment may be generally understood, we give below a copy of a note which has been transmitted by the Mayor to the Physicians practising in Boston.

“SIR,—A public Vaccine Institution having been instituted by the City of Boston, for the gratuitous vaccination of all persons who may consider it a privilege to avail themselves of its benefits, you are respectfully solicited to co-operate with the City Government, in directing those who may apply to you for information, to the *Vaccine Office*, in the third story of the City Hall, over the room of the Mayor and Aldermen.

In order to ensure a supply of genuine vaccine matter, during the warm season, it has been found necessary to adopt the following regulations.—

First. The Resident Physician will be in the Office every Monday, from the first day of April to the first of October, from 8 o'clock in the morning till 2 o'clock, P. M.

Secondly. Children and others who are vaccinated at the Office, are earnestly requested to call again on the following Monday after the operation, in order to have it ascertained whether the vaccination has been successful.

Thirdly. Children will be furnished with certificates of having been vaccinated, in order to gain admission into the Public Schools.

Fourthly. Physicians in the City and Country will be supplied with pure vaccine virus, gratuitously, at all times, on application to the Resident Physician.

CHARLES WELLS, *Mayor.*

Boston, March, 1832."

TREATMENT OF CHOLERA.

LITTLE light has yet been thrown on this interesting topic, in the countries where the cholera has prevailed. Powerful emetics of common salt or mustard, with the stimulus of heat, friction, and cauteries, externally, appear on the whole to constitute the most approved method of attacking the disease. Little, however, can be said in favor of any known treatment, whilst the mortality continues as great as it still is.

In London the mortality has not, so far as our accounts reach, materially varied from that exhibited by the bills of other afflicted places in Great Britain. It broke out in that city on the 12th of February. "*The first case reported to the Council was that of a ship-scraper, who had been employed, on the preceding day, on board a vessel from Sunderland.*" On the 17th of the same month, there had been fifteen other cases in London, and seven deaths by this disease. In Scotland, the ravages of the disease appear to be increasing, and the British Government are active in adoption of every means in their power of checking the destruction of the malady, allaying the popular excitement and alarm, and diffusing widely correct information respecting its character and progress.

A late writer, the latest indeed in England, suggests the same principle of treatment as was proposed by Dr. Hoit in a communication to this Journal, No. 4 of the present volume. He supposes, with Dr. H., that by producing a new and very powerful impression on the system, the disease may probably be overcome. This, he thinks, may be done by the inoculation of some virulent poison, and no one appears to him more promising than the *Rhus toxicodendron*. By introducing this beneath the cuticle, and at the same time administering it internally, a counter-action may be excited which shall take precedence of that which constitutes the cholera.

Most remedies that have been proposed for this disease, since its introduction into Great Britain, have been subsequently tried to a greater or less extent; we hope, therefore, to be able soon to offer the reader some account of the practical application of the principle thus proposed.

We think, with our correspondent CELSUS, that the modes of treatment hitherto described by foreign writers, have been surprisingly deficient in activity and boldness. The practice adopted by Dr. Page in the Spotted Fever, an account of which we have recently given, was much more decisive and powerful than any which has as yet, so far as the profession is apprised, been opposed to the cholera; and yet the exaggerated symptoms of this malady clearly demand a more rather than less active medical treatment. Should it reach our shores, we are confident it would find, in American Physicians, a more formidable foe than it has yet encountered in other countries.

Means adopted in Edinburgh to mitigate the severity of Cholera.—A Board of Health has been formed, comprising the names of many of the most influential gentlemen of the place, and with such a host of talent in its medical department as must command the fullest confidence of the public. Five hospitals have been prepared in different districts of the town for the accommodation of the poor, and we have reason to hope that scientific and well-directed efforts will now be made to put to the test of clinical experience the various methods which have been proposed—particularly galvanism—different kinds of emetics—neutral salts—and others, with regard to which the accounts at present are so contradictory that it is impossible to draw any satisfactory inference. We understand that in Edinburgh six stations have been opened for the supply of provisions to the indigent, and that at present 5800 quarts of good soup, and 6500 rations of bread, are daily distributed. This is, indeed, setting about the thing in the right way, and the northern metropolis has shown an example which we should be glad to see imitated elsewhere.—*London Med. Gaz.*

Further Quarantine Regulations.—By proclamation of the Mayor of this city, a quarantine is laid on all vessels coming from any port in the Island of Great Britain. This measure has been rendered advisable by the continued prevalence of the cholera in that Island, and its probable extension to most if not all its maritime towns.

Gaining Courage.—The Italian practice, which we mentioned some months ago, of curing leucorrhœa by the administration of ergot in doses of five grains a day, has advanced in boldness with great rapidity. Some cases of profuse menorrhagia have recently been reported by Drs. Pignacca and Cabini, in which this medicine was successful in quantities of from ten grains to half a drachm in the twenty-four hours.

Medical School of Kentucky.—The Medical Department of the Transylvania University is in a condition which must be gratifying to every friend of science. There are lectures given during the winter, on Anatomy and Surgery, by Dr. Dudley; on the Institutes and Clinical Practice, by Dr. Caldwell; on the Theory and Practice, by Dr. Cooke; on Obstetrics and the Diseases of women and children, by Dr. Richardson; on Materia Medica, by Dr. Short; and on Chemistry, by Dr. Yandell. The class, the last season, was as follows:—From Kentucky, 62—Tennessee, 41—Georgia, 22—South Carolina, 21—Alabama, 21—Vir-

ginia, 14—Mississippi, 12—North Carolina, 11—Missouri, 2—Indiana, 2—Arkansas Territory, 2—Louisiana, 1—France, 1—Ireland, 1.—Total, 213. The Professors have determined to give full courses, in their respective branches, during the ensuing summer, so that there may be no long interval of Medical Instruction at the University.

Monthly Notice of New Publications.

The Cyclopaedia of Practical Medicine. Edited by JOHN FORBES, M.D. F.R.S., Physician to the Chichester Infirmary, &c.; ALEXANDER TWEEDIE, M.D., Physician to the London Fever Hospital, &c.; and JOHN CONOLLY, M.D., Late Professor of Medicine in the London University, &c. Published in Monthly Parts. Part I. for January, 1832.

WE promised last week a more detailed notice of the first number of the *Cyclopaedia of Practical Medicine*, published in London the first of January last, and to be republished at Philadelphia. This No. contains 112 royal octavo pages, and will, we understand, form about a twentieth part of the work. Among the contributors we find the names of Drs. Lee, Elliottson, Marshall Hall, Clark, Conolly, and many others who are favorably known both as writers and practical men. The present No. contains twenty-one articles, commencing with Abdomen (Exploration of), and ending with Aorta (Aneurism of). Of some of these it is our present purpose to present a brief notice.

ACUPUNCTURE, by Dr. Elliottson. Dr. E. observes that this forms an example of a good remedy introduced into practice upon a groundless hypothesis. The immediate purpose which it is supposed to answer in Japan and China, is to allow of the escape of a subtle and acrid vapor, on the confinement of which various forms of disease are imagined to depend. The remedy was made known in Europe by Koempfer, a Dutch physician, who had witnessed its operation in Japan, as early as the year 1691; but the first European trials of it were made by Dr. Berlioz, in Paris, in 1810. The following extracts on the forms of diseases to which this remedy is adapted, and on the mode of employing it, possess some interest.

“The diseases in which the power of acupuncture is well established are, pain and spasm, not dependent upon inflammation or organic disease, rheumatism of the nerves, (rheumatic neuralgia,) as distinguished from that chronic form which is generally limited to a small extent of nerve, lasts a great length of time, and is independent of cold, the invariable cause of rheumatism. In rheumatism of the fleshy parts, in simple pain of any spot, and in spasmodic and convulsive pain of various parts, whether local or migratory, acupuncture is decidedly beneficial, provided inflammation be not the cause.”

“The operation may be performed in muscular, aponeurotic, and tendinous parts; and the needle introduced to the depth of from the fourth of an inch to two inches, according to the thickness of the muscles. We

should not advise it to be passed into viscera, articulations, or blood-vessels. In general no fluid escapes when the needle is removed ; but now and then a small drop of blood follows ; and in one case which came under our own observation, when the needle had been introduced into the pectoral muscle, blood spirted forth, but it was immediately restrained by gentle pressure—an occurrence in every respect similar to what once happened in the practice of M. Bretonneau.”

Some experiments performed on animals by the individual last named, go to show that the stimulus of acupuncture applied to the heart is capable of exciting it to renewed action in cases where animation has been suspended from asphyxia. Supposing these experiments to be accurately reported, however, they throw little light on the effect of the operation when employed for the cure of rheumatic affections. In the former case a stimulus is applied to a peculiarly irritable muscle, producing at first a spasmodic action, and subsequently a renewal of its ordinary functions. In the latter, the effect, so far as can be judged, seems to be directly sedative, causing parts previously possessed of exquisite sensibility, to pass at once into the opposite state. The *modus operandi*, however, of the operation is peculiarly obscure ; and the difficulty of assigning any rational explanation, or rather the absence of anything analogous in the operation of other remedies, has led some to express an unwarrantable scepticism in regard to the facts. In regard to the different explanations which have been resorted to, Dr. E. expresses himself in the following terms.

“ It is not accounted for by fear or confidence ; since those who care nothing about being acupunctured, and those who smile at their medical attendant for proposing such a remedy, derive the same benefit, if their case is suitable, as those who are alarmed and those who submit to it with faith. Neither is it explained on the principle of counter-irritation ; since the same relief is experienced whether pain be occasioned by the insertion of the needle or not. Galvanism, likewise, fails to explain it ; because, although the needle frequently becomes oxidated, and affords galvanic phenomena while in the body, these phenomena bear no proportion to the relief afforded by the operation ; besides that they are observed when acupuncture is practised upon a healthy person, and do not take place when needles of gold or silver are employed, which, however, are equally efficacious with needles of steel.”

AGE. This article, of about nine pages, is an interesting and highly finished treatise on the moral and physical changes which take place in advanced life. The author, Dr. Roget, is mentioned as Secretary to the Royal Society. The whole of this monograph marks a vigorous intellect, and philosophic habits of thought and reasoning. The insidious approaches of age, its effects on the osseous system, on the fluid secretions, on the skin and hair, on the organs of sight and hearing, on the circulation, on the absorbent system, on the muscles, on the brain and nerves, on the sensibility and temperature, and on the mental faculties, are all described in clear, forcible, and animated language. The specific dis-

eases of old age are then considered, particularly the climacteric disease as described by Sir Henry Hallford ; dyspepsia with its various aggravations ; failure of the urinary functions, palsy and apoplexy. The following passage on the dyspepsia of old age, describes a train of phenomena, which no one whose attention has been called to this subject can fail to have noticed.

“Dyspepsia, in all its varieties, is among the earliest as well as most common of the diseases of advanced life ; and its prevalence at this period may be traced to many causes, of which the operation is sufficiently obvious. The principal of these is, undoubtedly, the gradual decline of irritability and of muscular power which pervades the whole system, and in which the fibres of the stomach and intestines must of course participate. It often happens, that while the powers of assimilation have diminished, the appetite still continues good ; and, consequently, more food is taken than can be converted into healthy nutriment. That portion which is imperfectly digested being retained, tends, by its presence and accumulation, still further to impede the due performance of this function. The distention of the stomach and bowels from flatus, and their continued irritation from containing acid or acrid materials, lay the foundation of a vitiated habit, and of permanent injury to the tone of the organs. Another cause of imperfect digestion may be pointed out in the loss of the teeth, and the consequent defective mastication of the food. The mischief is often aggravated by the sudden discontinuance of the salutary exercise which was formerly taken ; and by an indulgence in the repose which, after a life of exertion, is almost claimed as the privilege of age.”

This disposition of the appetite to survive the digestive powers is among the embarrassing circumstances by which the practitioner is met in his attempts to enforce a due regulation of the diet in patients of this class. The desire for solid food often continues unabated, although the articles taken into the stomach are found, after causing inconvenience and distress through the whole canal, to pass from the rectum undigested and unchanged. To what, it may be asked, is it owing that a correspondence which exists at every other period of life between the powers of the stomach, in health, and its demand, is in old age no longer maintained ; and why does not the same instinct which leads the infant to seek the mother's milk as its natural and appropriate nutriment, direct the old man to the choice of an aliment equally adapted to his impaired powers ? The effect of luxurious habits, in accelerating the infirmities of age, and impairing the powers of the system, must doubtless be resorted to for the explanation of this apparent anomaly. Were all our habits through life conformed as much as those of infancy to the design and intention of nature, we might then with better reason hope in age, as in youth, that her obvious dictates would furnish us an unerring and ample guide. But appetite, like conscience, when it has too often been tampered with, will learn, from ill treatment, the lesson of ill faith ; and thus the excesses of youth become too surely the whips and scourges of declining age.

ALTERATIVES. An article on this subject, by Dr. Conolly, contains an enumeration of most of the articles which are commonly viewed in this light. We refer to it now, however, for the sake of a single remark, which has often occurred to ourselves, and which suggests a course of inquiry, destined, as we hope, at no distant period, to be pursued by the profession. Speaking of the medicinal virtues of guaiacum, Dr. C. observes,—

“ We have ourselves little to say of its efficacy when used alone ; and we so often remark, when doubt has been once cast on the operation of a medicine, and the effect is carefully looked for, that it fails to be observed, as much to wish that not only the guaiacum, but many or most of the articles in the *Materia Medica*, were submitted to new and careful clinical experiments. No part of medicine is in more need of complete reform than that which relates to the actual effect of medicines daily and hourly employed.”

We conclude by again directing the attention of our readers to the plan of this work, which will, we think, form a condensed library of practical medicine in a convenient form and at a reasonable price. The future numbers may be noticed as they appear.

A Treatise on Dislocations and Fractures of the Joints. By Sir ASTLEY COOPER, Bart., F.R.S., Sergeant-Surgeon to the King, &c. &c. Boston. pp. 516.

A NEW American, from the sixth London Edition of this valuable classic, is just from the press of Lilly & Wait of this city. The English edition, of which this is a reprint, contains several important additions, by the illustrious author ; and the different and especially most obscure species of fracture and dislocation, with the modes of reducing them, are illustrated by 34 very full and satisfactory copperplate engravings. All these additions and plates are given in the present volume, together with Dr. Godman's notes and references. Indeed, so perfect a work is here presented to the American practitioner, that the possession of it will be scarcely less a comfort to him, than it were to live within call of Sir Astley himself.

The Library of Entertaining Knowledge, published under the direction of the Society for the Diffusion of Useful Knowledge. Lilly & Wait. Boston. 1831.

THE winter is past, but the evenings are yet long, and we do the reader a favor when we call his attention to the work that bears the above title. It is not saying too much of these books, to rank their possession and use among the means every family should adopt to attain that greatest of all safeguards to the morals of its younger members,—*an agreeable home*. The mind of the young must be entertained. If a parent does not know this fact and act upon it, there are but slender hopes for the

prosperity or happiness of his children. The mind of the young *will* be entertained. If this entertainment is not found at home, it will be sought abroad; and this is the first step to the ruin of a young man. It is the great happiness of the present age that it abounds in sources of attractive and innocent amusement that may be introduced into the family circle. Most of these have the additional advantage of conveying instruction in agreeable modes; and of all which offer to the young, at the same time, both entertainment and knowledge, we know of none better suited to this object than that which we are now particularly noticing: its text is in perfect keeping with its title, and fully sustains the expectations to which that must naturally give rise.

Eleven volumes have been published, chiefly on subjects of natural and political history, biography, mechanics, &c. all very fully and handsomely illustrated by numerous cuts. We would refer, as particularly interesting, to the volumes on insect architecture, and the architecture of birds; but as it is our intention, in future numbers, to make the reader better acquainted with the work, especially that part of it which relates to natural history, we shall content ourselves at present with this general notice.

Whole number of deaths in Boston for the week ending March 24, 30. Males, 14—Females, 16.

Of consumption, 3—burn, 2—dropsy on the brain, 2—convulsions, 3—scarlet fever, 5—scalded, 1—typhous fever, 1—hooping cough, 1—old age, 1—suffocated, 1—worms, 1—dropsy, 2—suicide, 1—mortification, 1—lung fever, 1—inflammation on the lungs, 1—unknown, 3.

ADVERTISEMENTS.

HISTORY OF THE CHOLERA MORBUS.

Just published by CARTER & HENDEE, a Medical and Topographical History of the Cholera Morbus, including the mode of Prevention and Treatment, by SCOUTTETEN, adjunct Professor at the School of Medicine at Strasburg, member of the Royal Academy at Metz, &c. &c., with a Report read at the Royal Academy of Medicine at Paris, Sept. 17, 1831. Translated from the French, by A. SIDNEY DOANE, A.M., M.D. m14

REPORT OF THE ROYAL ACADEMY OF MEDICINE to the Minister of the Interior, upon the Cholera Morbus, published by order of the French Government. Translated from the French by JOHN W. STERLING, M.D. Just received by CARTER & HENDEE. March 14.

A DICTIONARY OF MEDICINE, designed for popular use. By Alexander Macaulay, M.D. Second English edition. Just received by CARTER & HENDEE. March 14.

A Treatise on the Structure, Functions, and Diseases of the Human Sympathetic Nerve. Illustrated with Plates. By John Fred. Solstein. Translated from the Latin, with Notes, by Joseph Pancoast, M.D. Just received by CARTER & HENDEE. March 14.

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THE
BOSTON MEDICAL AND SURGICAL
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VOL. VI.]

WEDNESDAY, APRIL 4, 1832.

[NO. 8.

· FRACTURE OF THE SKULL.

A Case of Comminuted Fracture of the Skull, with loss of Brain and Fungus Cerebri. By ABRAHAM ADAMS, M.D., of Cynthiana, Kentucky.

ON the 6th of September I was requested to visit a boy, eight miles distant, who had received a kick on the head from a horse. The messenger had not seen the boy, and knew nothing about the extent of the injury; but had been informed that the skull was not broken, and therefore I did not take trepanning instruments with me.

On my arrival I found the boy, who is about nine years of age, very restless, writhing and twisting continually like a wounded worm. He could not be held still—his eyes were permanently open, his pupils dilated, his pulse irregular, his respiration somewhat labored. On removing the coagulum of blood which filled the depression in his skull, I ascertained that there was a comminuted fracture, with a rupture of the membranes, some of the brain having been discharged through the rupture, and every violent exertion causing a continuation of the discharge. I immediately despatched a messenger for trepanning instruments. In the mean time, I placed my hand over the orifice in the membranes, to prevent, when the patient made such exertion, any further loss of brain.

The boy was not seen at the instant the blow was inflicted. The stroke was heard by some persons who were near; looking in the direction, they saw the boy falling, and the animal with the appearance of having just kicked. From the seat of the injury the boy must have been stooping forward; he had also an extensive contusion on his hip and on the left arm, near the elbow. The presumption is that in leaning forward, (which would bring the elbow to the hip, and the top of the head in a situation to receive the blow,) the animal kicked with both feet; that one struck the head, and the other the contused arm and hip. The mare no doubt kicked with her utmost force, as she was at the time teased by a stallion.

In about two and a half hours, having procured instruments, I proceeded to the operation. I made a crucial incision in the scalp, turned up the flaps, and removed all the detached portions of bone. The fracture was seated in the left parietal bone, extending in length about two and a half inches, near the middle of the bone and nearly at right angles

with the sagittal suture. A line drawn from one ear to the other would pass over it a little obliquely.

The removed portions of the bone, when placed together, formed an irregularly shaped figure. In the centre it was about one and three-fourth inches in width ; at the extremity next the sagittal suture, not more than three-fourths of an inch, and of an angular shape ; at the opposite extremity, it was one and a fourth of an inch in width, of an irregular circular form. At this extremity the plates of the bone were separated, and five spiculæ of the under plate driven through the membranes into the substance of the brain. I saw one partly buried in the brain, which led me to seek for the four that were entirely concealed from view. I introduced my finger, felt the spicula, and making my finger a director, followed it with the forceps, seized the bone, and extracted it. One of the four removed in this way was three-fourths of an inch in length, rather more than half of an inch in width, having irregularly serrated edges. The rest were of smaller dimensions. From the extremity last mentioned a fissure extended into the occipital bone, the extent of which appeared considerable. I did not trace it far, as no necessity existed for it.

About half an inch from this extremity, there was a depressed portion of bone of a semicircular form, not more than half an inch in its widest diameter, separated from the main fracture by a space of sound bone, not more than half an inch in width, connected with and situated entirely on that side of the fissure, before spoken of, next the occipital. From the situation of this depressed portion, it was impossible to apply the elevator so as to raise it, and as the scalp was lacerated over the depression, I determined to remove it with the trephine. How this small portion was depressed, separated from the other, I did not entirely satisfy myself ; the most probable conjecture to me was that it had been done by the heel of the horse's foot, or some irregularity in the hoof, the animal being unshod.

The other fractured portions were so completely detached, that there was but little difficulty in removing them, except a portion near the middle of the fracture, in its widest part. This portion was divided equally in a longitudinal direction. The middle edges were driven in, and very tightly wedged together ; and the outer edges being irregular, and the under plate wider than the upper, rendered its removal very difficult. I however succeeded, by clipping off the irregular projections in the upper plate, at several points, and then elevating the centre. From appearances, corroborated by the statements of those who had been with the boy from the beginning, it was evident that a considerable quantity of blood had been lost. In making my incisions I divided a branch of the occipital artery, which I considered as a fortunate circumstance, and permitted it to bleed, until from the quantity lost I thought it prudent to check it by pressure. During the operation there were several ounces of blood lost from branches of the middle artery of the dura mater, that were ruptured, their impression on the removed bone being very distinct.

After having removed all the detached bone, and the coagula that formed in the depression, I brought together the edges of the divided scalp by a few sutures, leaving the part entirely open from which the

bone had been removed. During the operation he gave no symptoms of suffering except when I made the incision in the scalp ; the force of several men was then necessary to hold him.

I placed the patient in bed, having his head elevated ; he lay quiet during my stay that evening, which was not more than an hour after I had him removed from the table to the bed. The restlessness and contortions of his body which had been noticed, no longer continued. He seemed disposed to sleep. His pulse and respiration were not much improved. The boy slept some during the fore-part of the night ; but in the latter part fever having supervened, he was bled to eight ounces.

On the morning of the 7th I saw him at 10 o'clock, and finding his skin hot, and his pulse active, I took nine or ten ounces of blood ; gave him pulvis jalapæ ; directed it to be repeated every three hours, until three portions had been given. If that did not operate, then to give oleum ricini, and if in two hours no operation was effected, to administer an injection. The boy had not yet spoken. Yet he seemed to understand the queries put to him, though he did not speak. My directions were strictly followed, without producing the desired effect. The patient became so extremely restless and unmanageable in the latter part of the night, that a messenger was despatched for me. On the morning of the 8th, I arrived at an early hour, and found my little patient very untractable. Unless held, he would roll over his bed, and make efforts to get up. The injections had been retained. I immediately attempted the introduction of a suppository of soap, which on account of the spasmodic contraction of the sphincter was not easily effected. In a few moments the soap was discharged, followed by a copious evacuation of fecal matter.

As no urine was discharged, and his restlessness continued, I was led to examine his bladder, which was found to be greatly distended. While reflecting on the best mode to effect a discharge (not having a catheter with me), the boy made an effort to rise, saying "let me get up." We then raised him to the floor. A profuse discharge of urine followed. He now became quite composed, and answered rationally questions put to him.

A continuation of the cathartic operation was directed. The suppository of soap was found necessary to effect a discharge, for the five succeeding days. After that time it was no longer used, but a cathartic was daily administered, often repeated several times in the day, until the end of the fourth week. From this period to the sixth week, a cathartic every other day was sufficient ; after which no cathartic medicine was administered. During the whole course of the treatment, calomel was administered about once a week, in doses of about ten grs. ; the other cathartics used were pulvis jalapæ, pulvis rhei, sulphas magnesiae, and oleum ricini ; these were varied, repeated, or alternated, according to circumstances ; restricting him at the same time to the lowest diet.

In the first instance no other application was made to the wound, than a dressing of lint, confined by proper bandaging. The dressing was soon discovered to be stained with bloody serum, and before the morning of the 7th, a large quantity had been discharged. It became necessary frequently to change the pillow, and the piece of cotton cloth that

was used to absorb the discharge. This discharge continued for five or six days, though after the third it was much diminished in quantity. On the fourth day the dressing and lint were removed, when the wound made by the incisions in the scalp was found to be suppurating, and serum a little tinged with blood discharged from the part injured by the blow. I renewed the dressings daily for thirty days; after the third dressing I removed the sutures that had not been discharged by the suppurating process, and applied strips of adhesive plaister, that were daily renewed.

On the morning of the 11th the patient became more uneasy and restless than he had been for several days. In a short time he had violent convulsions, which continued for some hours. On inquiry I very satisfactorily ascertained the cause of these convulsions. I had directed them to make a cap of light materials, very large, (to prevent pressure on the wound,) to keep the boy from disturbing the other dressings, for he had from the beginning a constant disposition to tear them from his head with his right hand, (his left being paralytic from the receipt of the injury.) This cap, in opposition to my instructions, was made of coarse domestic linen, and so small as to press tightly on the wound. It was put on in the morning, and in a very short time the boy became restless, and could not be kept quiet; the convulsions followed, and were arrested by the removal of the pressure produced by the cap and bandages, the struggles of the boy having deranged them so much that they were entirely removed by one of the attendants.

The case went on well from this period, nothing remarkable occurring until, as I had anticipated, on the 11th day fungus cerebri made its appearance. I at once determined to adopt the treatment I had heard recommended by Professor Dudley. I enveloped a piece of dry sponge in a strip of gauze, and by means of the bandaging confined it to the part. Having early made this application, the fungus was prevented from becoming large, and in a few days it entirely disappeared.

In the seventh week from the time the injury was received, I visited the boy for the last time. The wound was then cicatrized, except a very small portion, a mere point.

Nov. 14th. The boy in company with his mother came to town to-day, on horseback. The wound is completely healed. He has perfect use of the arm that had been paralysed. His mental faculties seemed not in any degree impaired. His health is perfect. He has been several times to mill, riding on a bag, a distance of five or six miles.

Transylvania Medical Journal.

LOCAL APPLICATION OF CAMPHOR.

To the Editor of the London Medical Gazette.

SIR,—My latter communications to you have contained some striking instances of the powerful effects which the local application of camphor produces. I have reason to suppose that even the action of the heart is under the influence of its power, and adduce the following case in support of this opinion.

A child, suffering from some peculiar affection of the brain, sunk into that state of torpor which is generally the result of effusion into the cavi-

ties. The following was the state of the child when I determined to try the effects of camphor on the heart. It was lying perfectly senseless, with a slight flush in the countenance, was squinting, the pupils dilated, the pulse beating about 64 in the minute, intermitting every fourth stroke. I enveloped the whole chest, anteriorly and posteriorly, with a piece of flannel, soaked in the following camphorated solution.

Gum Camphor, ʒ iss.

Sp. Vin. Rect. ʒ iij. M. f. solut.

In less than five minutes, the child, who had lain perfectly senseless and quiet for some hours, became pale, moaned, and appeared restless and distressed, the pulse beating so rapidly that it was almost impossible to count it. These appearances increasing, I removed the flannel from the chest, and the child in a few hours had returned to the state in which it was previous to the application of the camphor, and died in about twenty-four hours. It was not with any expectation of benefiting my little patient that the experiment was made, but his hopeless state, in my mind, justified the trial. It is not my intention to suggest any peculiar conditions of the system, or of the heart itself, in which this application might be useful, but I can imagine many, and trust that my hopes may not be deceived, when the opinion is again put to the test of experiment.

I have lately used the same local application to the perineum in a case of gonorrhœa dormientium. Previous disease had induced excessive debility, which every paroxysm of this attack aggravated considerably. Nearly three weeks have elapsed since the application was had recourse to, and no paroxysm has actually occurred since.

From ascertaining, by repeated experiments, the great value of this application, and from having successfully applied it in cases that might be said to be somewhat analogous to cholera, I would venture, with some degree of confidence, to suggest its use in that disease. If a case occurred in my own practice, I should, without hesitation, envelope the whole abdomen, from the ensiform cartilage to the pubis, and the corresponding portion of the back, in flannel, soaked in the solution, and I should do it in great expectation of some advantage following; for it appears to me that it is only in cases where the nervous power is absolutely deficient, (not in those in which it is in a state of diseased action,) that the application could in any way be prejudicial. I am, Sir,

Your obedient servant,

Kensington, Dec. 14th, 1831.

HENRY GEORGE.

Mrs. G., a short, stout woman, was delivered on Thursday, the 15th December, 1831, of her fourth child, after somewhat more than her usual suffering upon that occasion. She went on well until Saturday the 17th, when I found her complaining of pain in the lower part of the abdomen, somewhat wandering in its situation, and although constant in some degree, yet imitating after-pains. Pulse rather more frequent than was pleasant; bowels had been moved; milk secreted; lochia lessening; tongue tolerably clean; some pain in the head, but only noticed upon being questioned about it. These symptoms were ushered in by rigors during the night before; they were, however, far from alarming. Ap-

plied fomentations, and gave a diaphoretic mixture. In about six or seven hours I visited her again, and found all the symptoms materially increased ; pain in the abdomen acute ; abdomen swollen, and exquisitely tender ; pulse greatly accelerated ; skin intensely hot ; lochial discharge totally ceased ; considerable pain in the head, with intolerance of light and extreme restlessness. I drew blood until an impression was made upon the pulse ; directed five grains of calomel to be given every hour, of which she took seven doses. I saw her again in two hours, and found the symptoms by no means abated—increased they could not well be. I then applied a large flannel embued with a strong solution of camphor, as recommended by Mr. George. Upon visiting her early the next morning (Sunday, 18th), I learned that the pain had ceased almost immediately upon the above application. Pulse still frequent, but the febrile and inflammatory symptoms lessened. No stool : to take 3ss. castor oil every two hours until it operates. In about four hours from this visit, I was sent for hastily ; she was thought to be dying. I found she had had two or three stools, and had been out of bed to pass them, and thus induced syncope : she had taken a few spoonfuls of mutton broth, contrary to my wish, and nausea and vomiting ensued ; pain in the region of the uterus returning. Repeated the solution of camphor ; gave her tr. Opii gtt. xv. sp. Ammon. arom. gtt. xxx. stat. In the evening the sickness was unabated ; the camphoretted spirits had not produced such prompt and decided relief as upon its first application, but still the pain was not so great ; lochial discharge was returning, and pulse more tranquil. To take the effervescing mixture.

Monday, 19th, morning.—Pain, and tenderness, and swelling of the abdomen, have left her ; bowels moved twice in the night ; stools copious, offensive, and dark-colored ; passed urine freely, which she had done all the time ; milk freely secreted ; lochial discharge freely and fully re-established. Continue alkaline mixture.

Evening.—The only complaint she makes is of soreness of the tongue and inside of the lips ; bowels again moved twice ; no mercurial fœtor nor tenderness of the gums.

From this time she went on progressively improving, with the exception of a little faintness a few days afterwards, arising from her imprudent exertion in leaving her bed to evacuate her bowels, but from which she very soon rallied, and is now as well as usual in the same time after her lyings-in.

C. M. ASHWIN.

PROXIMATE CAUSE OF ICTERUS.

Read before the Boston Society for Medical Improvement, by E. G. DAVIS, M.D., and communicated for the Boston Medical and Surgical Journal by the Publishing Committee.

WHAT is the proximate cause of jaundice ? We are commonly told that this disease is immediately produced by obstruction to the course of the bile, which, in consequence, is reabsorbed into the blood, and thence thrown upon the skin and the kidneys ; and we are referred to various causes by which it is supposed this obstruction may be produced, as the

remote causes of the disease. For one, I am inclined to doubt whether obstruction to the course of the bile be, in fact, the proximate cause of this disease. The obvious symptoms which inspire the suspicion of jaundice, both in the physician and the common observer, are the unusual yellow color of the conjunctiva, of the eyes, of the skin, and of the nails. On farther inquiry, it is generally found that the urine has a deeper color than usual, verging from a yellow to a red,—that the stools, on the contrary, are pale, and the bowels somewhat constipated; these last symptoms not always accompanying the others, and therefore not being viewed as essential to the disease. The natural inference is, that bile is now secreted by the kidneys with the urine, and also transudes through the exhalant or extreme vessels of the surface, thus pursuing two unusual channels. It is also evident, when the two last symptoms are present, that the bile does not pass into the alimentary canal as is usually the case, and we all agree in referring the constipation to the fact that the intestines are deprived of their usual stimulus. So far, there is no point on which any reasonable doubt can be entertained, nothing in which all will not unite in opinion. But in explaining the manner in which this transfer of function to distant and unconnected organs takes place, an hypothesis is resorted to, which, to say the least, the circumstances do not render necessary. It is said that the bile is secreted by the liver; but by mechanical or other causes, being prevented from flowing through the ducts into the intestines, is carried into the circulation and thence separated by the renal and cutaneous vessels. If in this explanation is implied the actual absorption of the bile and its subsequent secretion, the process seems to be unnecessarily complicated, since neither is required to explain the phenomena. It may be thought, however, that these processes are not in truth an absorption and secretion; that the bile is taken up by the vessels, mixed with the blood without change of properties and without becoming an homogeneous fluid with it; so that its subsequent separation implies little more than a mechanical division. Waving the question whether this explanation is in accordance with the laws which usually regulate the animal economy, we may inquire how it happens that this loose combination of blood and bile should never have been made evident by ocular demonstration: for surely if such a combination took place, the blood drawn from any part of the body, from the veins, for instance, must afford indubitable evidence of the fact. Such evidence, however, is not to be obtained; and it may well be doubted whether bile, as such, ever exists in the vessels in a state of mixture with the circulating fluid.

In the absence, therefore, of direct proof, we are not compelled, on the ground of analogy, to believe that the liver secretes the bile as usual in cases of jaundice. There are also very considerable difficulties in comprehending how, if the secretion does take place, the fluid is prevented from taking its usual course. The different modes in which this obstruction is supposed to happen, form, in fact, the groundwork of the different species of “*icterus*,” and by considering these with reference to their proximate causes, we shall be better enabled to estimate the nature and the amount of the difficulties alluded to.

1. The first of these causes, and that which constitutes the “first species”

of Dr. Good, is the viscosity of the bile itself, by which it is prevented from flowing freely through the biliary ducts. It is not easy to understand how a substance can be secreted by the liver in a state too viscid to pass through its excrement vessels ; or how in this state it can well be taken up by the absorbents and conveyed into the blood. It is easy, says Good, to conceive, that the bile may become inspissated from various causes. True ; that it may so when prevented from flowing through the ducts, is easy to understand ; but how the inspissation occurs, as the primary fact, still remains to be determined. It is observed, too, that when the disease has existed in this form and has just been removed, the bile expelled both by the mouth and the anus, is found very tenacious and high-colored ; an interesting fact, but by no means unequivocal in its bearing on the question of the pathology of the disease. Indeed, if the bile were obstructed by its viscosity, it would be natural to expect that its character in this respect must have changed before it could pass at all through the biliary passages, and its appearance when expelled could be no criterion, whether it had been detained from this cause or from any other.

2. The second kind of obstruction to the passage of the bile is that produced by the formation of gallstones and their passage through the hepatic duct and ductus communis into the intestines. That an obstruction may and often does take place from this cause, there can be no doubt ; and under these circumstances the bile must be prevented from passing into the intestines, at least so long as the gallstone is lodged in the ductus communis. Accordingly we find that during the passage of one of these calculi, the dejections lose their usual color, becoming white or clay-colored. In a case in which the obstruction in this part of the passage continued for an unusual period, as for several days, it might well happen that the bile might be reabsorbed and appear as a secretion on the skin and in the urine. That this is not ordinarily the case is evident from the fact that neither yellowness of the skin nor high-colored urine are among the usual symptoms of chololithus, which, therefore, cannot with propriety be regarded as one of the causes of jaundice, although some of the symptoms of the latter disease are its usual concomitants.

3. The third cause of obstruction of the biliary ducts recognised by Good, is a spasmodic stricture in their course induced by acrimonious ingesta, hysteria, or violent passion ; and accompanied beside the other symptoms of jaundice, with great pain and tenderness in the hypogastrium. It is perhaps a bold measure to deny the existence of a disease so accurately defined and so minutely described ; but the notion of a tonic constrictive spasm in organs constituted as are the ducts in question, is one which, without proof and advanced simply as an hypothesis, is calculated to inspire considerable scepticism. That the symptoms described really exist in combination, may be admitted ; but there is nothing in this combination which goes to prove the occurrence of spasm, beyond what happens in other cases of jaundice, if we except the single circumstance of pain ; and this is amply accounted for in those cases in which the disease arises from acrimonious ingesta, flatulence, or repelled gout, which are described as the usual causes, without having any re-

course to a distinct explanation. The pain, too, is usually a transitory symptom, and is relieved by evacuations, while the others may continue for days or even weeks ; and it certainly cannot be imagined that during all this period the bile is prevented from pursuing its proper course by a spasm of the ducts. Indeed, as we have said, no fact analogous to this is known to occur in any part of the system. Among the various diseases to which the glandular system is subject, a stoppage of its excretory passages by spasm is not known to be one. We know of nothing like spasm in the renal, urinary, salivary, or lachrymal passages, and where obstruction occurs in either, we seem justified, by the absence of muscular structure, in attributing it to a different cause.

4. In icteric jaundice, the fourth species, our author experiences an evident embarrassment in making the pathology of the species conform to that of the genus. In this, the seat of the disease is placed in the organ itself ; and the bile is said to be obstructed by a derangement of the liver by scirrhus or otherwise ; but it is not very clearly explained how such a derangement can cause any impediment to the flow of the bile through its own ducts.

5. In the fifth and last species, or *icterus infantum*, the bile is said to be obstructed by viscid meconium, which prevents it from flowing from the duct into the duodenum. It is no small objection to this mode of accounting for infantile jaundice, that it supposes the meconium to be in a state very different from that in which we ever observe it ; one, namely, in which it can serve the purpose of a plug to the biliary ducts, and to occupy a limited portion of the intestine in which alone it could exert this influence. It is still more against this view of the subject, that although the meconium may be, and in fact always is, in favorable cases, removed from the bowels within a few hours, the symptoms of the disease do not usually disappear on the production of this effect, and will sometimes continue for several weeks, so that the old rule of "*sublata causa tollitur effectus*," is strangely violated.

There are two general objections, one of a positive and the other of a negative character, to the theory that obstruction of the bile is the proximate cause of jaundice. The first is, the large proportion of cases in which relief is obtained, and the means by which this object is effected. If the *ductus communis* were really the subject of tonic spasm ; if the bile could really become so viscid as not to pass through the usual passages, and to present an impassable barrier to the preceding secretion ; if the meconium could gain admission into the duct, and there act the part of a valve to prevent the egress of a particle of bile which might prepare a passage for the rest, we certainly should expect to find, in these cases, some serious commotion of the system, and one not easily appeased. Would it be likely that, the disease occurring in this manner, ninety out of an hundred cases should terminate without producing more than a temporary inconvenience ? That scarce a case should be fatal, and that the remedial means required should be simply a cathartic, an emetic, or a course of tonic treatment ; that the disease should exhibit no perceptible crisis, no sudden change, but should come on and again disappear gradually and by imperceptible gradations ? That it should seldom be accompanied with severe pain, and almost never fatal ? Cer-

tainly this combination of facts, when viewed in connection with the common theory, if not absolutely inexplicable, is among the most remarkable which the science presents.

But, secondly, there is no direct proof derived from examination, that the obstruction above mentioned is the proximate cause of jaundice. Indeed the disease, when idiopathic, is so seldom fatal, as to have afforded very limited means of comparing the post-mortem appearances with the previous symptoms. The only species, indeed, which is said to be frequently fatal, is that in which the obstruction exists in the liver itself, and we have already mentioned the difficulty of reconciling this species with the general description of the disease. We have on record, however, some cases terminating fatally, in which jaundice, if not the only disease, was the prominent and permanent symptom, in which the liver and ducts were subjected to a careful examination; and the evidence derived from these is the more valuable, since they are recorded as exceptions to the general rule, and not as furnishing any argument against its correctness. These cases, seven in number, are contained in the *Archiv. G. de Med.*, from which they were transferred to the *Boston Journal* of May 31, 1831. In all, the yellowness of the skin is mentioned as very remarkable; and in all the structure of the organ was more or less impaired; but in one only did it appear that there existed any obstruction in the ducts.

Is it not, then, a more simple mode of accounting for this disease, to suppose that the bile, instead of being obstructed in its course, is actually not secreted by the liver in sufficient amount, and that other organs, in consequence, assume for the time a vicarious function. It is certainly not difficult to conceive of more than one state of the organ in which its function may be in a greater or less degree impaired, and that these may correspond to the different modifications of which the disease is susceptible. If yellowness of the skin and eyes, high-colored urine, and pale evacuations, be essential to the disease, would not all these arise from any cause preventing the secretion taking place, from the liver, and from a vicarious function being assumed by the kidney and the cutaneous exhalants. It may be urged, in reply, that such a function is foreign to these organs, and that to suppose them capable of separating this fluid from the blood is an unwarrantable assumption. But it is to be remembered that this difficulty, which stands alone by the present supposition, is, on the other, superadded to the previous hypothesis that the bile is absorbed into the circulating system. Unless, therefore, the two processes are more easily conceived than one, there seems no advantage in this respect to be conceded to the common theory.

Again, if to the common symptoms of the disease is frequently added nausea, languor, and uneasiness at the stomach; a combination which constitutes the first species or *icterus cholæus*; if in this species there is restlessness, dislike to exertion, and loss of appetite; if it occurs at the close of summer, when the system is peculiarly debilitated by heat; and if, lastly, there is little or no pain accompanying these symptoms; may they not with some probability be attributed to a torpid state of the organ in which, for want of vital energy, its usual function is suspended, although the blood is loaded with a principle which must be eliminated in order that the processes important to life may go on without interruption.

If, again, the symptoms are such as to indicate a more acute affection of the organ ; if there exist severe pain in the hepatic region, extending thence to the shoulder, with distension, sense of fulness and tenderness to pressure ; is there not reason to suppose that some inflammatory action of the organ has occurred, and that a diminished secretion of its usual fluid has been the immediate result ? This explanation will be rendered still more probable if the preceding remote causes have been such as to check the due action of the extreme vessels or to impede the digestion ; and thus cold applied to the extremities, or indigestible food, may very naturally produce the disease under this form.

In that form which is termed hepatic jaundice, and which has been ascertained to be generally connected with chronic inflammation or scirrhous of the organ ; in which the disease exists without pain, and is often one of the train of evils consequent on long-continued excess, high living, or residence in hot climates ; in this the proximate cause of the disease is so plainly pointed at, that it can hardly be mistaken by the most cursory observer. Indeed, the very remarkable expression by which it is endeavored to bring this within the generic definition of jaundice, shows that even in the opinion of its author, this definition was not properly applicable. The course of the bile, it is said, is obstructed, but rather in its secretion or separation from the body of the liver, than in its passage through the tubes.

Lastly, where icterus occurs as a disease of infancy—constituting the fifth species of Good—it is an obvious explanation of its appearance that the liver, instead of arousing at once from the dormant state in which it remained during fetal life, continues still inactive and requires some additional stimulus to rouse it to exertion. This explanation certainly seems more simple than that which would refer the disease to a cause connected with mechanical obstruction. The liver, as is well known, remains nearly quiescent in the fetus, and a very small proportion of bile is found in the meconium secreted before birth. It is the less to be wondered at, therefore, that this organ should not at once adapt itself to the altered state of the system of which it makes a part ; and should be slow in commencing that function which has but just become necessary to the animal economy. That the blood should so immediately require this elimination is indeed a singular circumstance, and well worthy of notice, but by no means more involved in one of the theories in question than in the other.

Finally, the influence of remedies and the usual period and termination of jaundice under its various forms, as they militate against the view of obstruction usually taken, are clearly in favor of that which refers it to diminished secretion. Indeed, it is extremely difficult to understand how these remedies can, in any proper sense, act as deobstruents on the ducts of the liver. Regarded with reference to their proximate effect, the remedies employed in jaundice may be reduced to four classes : nauseants, emetics, cathartics, and tonics. It were equally tedious and unprofitable to enter into a protracted consideration of the circumstances which render necessary the exhibition of these various remedies. It is sufficient to remark that if any *modus operandi* on the bilious system is common to all of them, it can scarce be any other than that of stimulating

the organ to increased secretion. That this is the ordinary effect of articles in the three first classes, it requires no argument to show, since the fact is within the daily experience of every practitioner : and with respect to the operation of tonics, it is at least reasonable to suppose that the means by which they are enabled to give increased vigor to the digestive system is by exciting to renewed and more healthy action an organ which plays so important a part in this essential function.

BOSTON MEDICAL AND SURGICAL JOURNAL.

B O S T O N , A P R I L 4 , 1 8 3 2 .

EFFECTS OF OPIUM EATING.

WE took occasion not long since to remark on the singular analogy between the respective effects of opium and alcohol on the system, and to observe that it was the difference of the circumstances under which the two articles were commonly taken which produced so considerable a diversity in the symptoms resulting from them ; and that as opium, when taken by an individual acted upon by external stimuli, as those of light and sound, often fails to produce somnolency, so alcohol, if swallowed under opposite circumstances, as in silence and darkness, proves directly soporific. Our opinion on this point has been recently confirmed by the result of some inquiries we have made of a person addicted to the habit of using laudanum in considerable quantity. The individual is a female forty years of age, who for some years has been in the habit of taking from half an ounce to an ounce of laudanum daily, for the sake of removing uneasy sensations apparently connected with a dyspeptic state of stomach. She never experiences from its use the effect of sleepiness, nor are her hours of sleep at all affected by the very variable period at which she uses the drug. Her usual course is to take a dose a short time before each meal, and other doses at uncertain hours. Unless fortified in this manner, the stomach is so irritable as to be incapable of retaining food. The bowels are moderately, not excessively constipated, and as her habit is entirely sedentary, it is doubtful how far this circumstance is connected with the use of the drug. She is otherwise temperate in her habits.

To what extent, and in what manner, the use of opium is injurious to the animal economy, is a point which is yet undetermined, and which is the less likely to be settled, as the unhappy victims of this habit labor even more sedulously than those addicted to the use of ardent spirit, to conceal the fact from notice ; while the effects being less marked, the concealment is much easier in the former case than in the latter. In fact, it not unfrequently happens that a physician attends a patient in the daily

use of this indulgence, and remains entirely ignorant of its existence ; while, on the other hand, the evil is of such limited extent compared with that of drunkenness, as to make it less desirable to bring it into public notice. The few statements which have been furnished us on this subject are either vague and general, as the accounts of travellers who have witnessed its effects in the East, or fanciful and exaggerated, as is the case with the Confessions of an Opium-eater. This last production, however interesting and highly wrought considered as a literary work, has too much of the marvellous and is too poetical to be consulted for sober facts. We see that attention has lately been attracted to this subject by a case which lately took place in England, the decision of which involved in some sort that of the question above alluded to. This arose out of a claim made by the representatives of a deceased nobleman in Scotland for the amount of insurance effected upon his life. The claim was resisted on the ground that the individual alluded to was an habitual opium-eater, and that this fact was not made known to the company at the time when the insurance was effected. The particulars of the case are mentioned in the thirty-fifth number of the Edinburgh Medical and Surgical Journal, and we refer our readers to that authority for its details. It is sufficient here to mention, that during the two years that intervened between the signing of the policy and the death of the Earl, his daily portion was from two to three ounces of laudanum, and that at one time the allowance per diem was not less than forty-nine grains of solid opium and an ounce of laudanum. The effect of this is somewhat variably stated by the evidence adduced on opposite sides ; but the amount seems to be, that while under the influence of the drug he attended to business, saw and conversed with his friends, appeared cheerful, and exhibited no symptoms distinctly resembling intoxication : on the other hand, that his appetite became exceedingly impaired, that when he rose in the morning he was so stiff as to be unable to support himself, and that he was subject to depression and low spirits. Several physicians were examined, and some of high eminence, on the general question as to the influence of this habit on the general health ; but as it happened, not one of them was able from his own experience to pronounce it prejudicial. The jury found the insurance company liable. In consequence of this decision, and apparently with a view to make up the deficiencies of his own evidence, Dr. Christison has come out in the Journal above mentioned with his views on this subject. The Doctor is unwilling to admit that the habitual use of this drug can be indulged in with entire impunity ; but the facts which he adduces go to show that the injurious effects are often exceedingly slow in taking place ; that when the constitution has become once inured to the poison, so that the aid of habit is fairly enlisted in defending the system, the nerves, as well as the stomach, will hold out for a wonderful period against its destructive influence. For the benefit of

those who have not the opportunity of recurring to the article itself, we quote the following list of cases, which, even regarded as exceptions to a general rule, are sufficiently remarkable.

“ 1. A young lady of five-and-twenty has taken it largely for fifteen years. It was first administered secretly by her nurse to keep her quiet and save trouble ; and the unhappy lady was subsequently compelled to keep up the practice for her comfort. She enjoys good health. 2. A female, a patient of mine in the Infirmary, a martyr to the rheumatism, took it for ten years previous to her fortieth year in the quantity of a drachm daily of solid opium. She then gave it up. Six months afterwards she was attacked with jaundice ; subsequently she was several times severely ill of rheumatism ; and she died in her forty-third year of consumption. This woman, however, led a licentious life from an early period. 3. A well-known literary gentleman, who has taken laudanum with some intermissions for twenty years, and occasionally to the extent of nine or ten ounces daily, has now attained his forty-fifth year. He is spare in form, looks older than he is, but is capable of undergoing a good deal of bodily fatigue, and enjoys tolerably good health so long as he takes sufficient exercise. His allowance when I had last an opportunity of conversing with him was about nine drachms of laudanum daily. 4. A lady in this city, after drinking laudanum to excess for upwards of twenty years, died about the age of fifty. No information could be supplied of the disease of which she died. 5. A lady of the same age takes about three ounces daily, and has used it for many years. She appears to enjoy good health. 6. A lady, about sixty years of age, has taken it above twenty years, and is in good health. 7. A charwoman, who had been in the daily practice of drinking two ounces of laudanum for many years, died at the age of sixty. The gentleman who has stated this fact, does not remember what disease she died of, although he dissected the dead body. 8. An eminent literary gentleman, I am informed, has been in the habit of taking laudanum since he was fifteen ; and his daily allowance has sometimes been a quart bottle (twenty-six ounces), consisting of three parts of laudanum and one of alcohol. Enormous as this dose may appear, I am assured this fact is well known to his acquaintances. He is about sixty years of age, and enjoys good health. 9. A lady of seventy, now alive, has taken about an ounce of laudanum daily for nearly forty years. She enjoys tolerable health, and every year travels great distances to visit her friends. 10. An old woman of eighty died a few years ago, at Leith, after taking about half an ounce of laudanum daily for nearly forty years ; and she enjoyed tolerable health all the time.”

The secret, no doubt, by which both alcohol and opium are so often rendered apparently innoxious, is to be found in their regular and systematic use, as distinguished from occasional indulgence in excessive doses. In regard to opium, this precaution is the more likely to be adopted, since an overdose is known to be attended with immediate danger ; and those who acquire the habit are compelled to feel their way and increase the quantity only as the susceptibility becomes obviously diminished. The fitness for this kind of training, however, must vary in different individuals with other peculiarities of constitution ; and there is little doubt

but many pay with their lives the penalty of their imprudence, before the habit can properly be said to be established.

With regard to constipation, as an effect of this habit, it seems not to be more constant than the other ill effects which are attributed to its use ; and it may be doubted whether in those who have become duly seasoned to its employment, this circumstance continues to constitute an inconvenience. The opium-eaters of the East are not compelled to use cathartic medicine, and in the case at least of those above mentioned, no laxatives at all appear to have been resorted to.

NEW CURE FOR CONSUMPTION.

A CORRESPONDENT of the *Revue Medicale* strongly recommends *snails* in cases of incipient phthisis. The best mode of administering the remedy is said to be in substance, the commencing dose to be a single snail eaten raw from the shell three times in a day. The number should gradually be increased, till it reaches twenty or more daily, and then varied or continued without change, according as the stomach is found to digest them. Many patients have been capable of taking forty daily, and two carried the dose to sixty-six without inconvenience. One of these patients having been for several years subject to catarrhal complaints on slight exposure, was at length attacked with cough, febrile evacuations, purulent expectoration, and other symptoms of approaching consumption. These went on increasing in spite of every remedy ; till the patient was at length induced to put himself under the care of the snail doctor. When he had carried the dose to twenty-two repeated three times daily, the symptoms exhibited a marked amelioration, and by continuing this amount for the space of fifteen days, the state of things was so far improved as to promise a speedy recovery.

THE SUNDERLAND DISCOVERY.

WE alluded, a few weeks ago, to the proposition of Dr. Clanny, of Sunderland, to the British Government, to unfold a cure for the Cholera, which he had discovered, on the receipt of a sufficient compensation. The reply to the Doctor was such as he merited ; and finding he could not *sell* his discovery, he has generously *given* it to the public. What it is, may be best told in the language of the London Medical Gazette.

“ Every one knows,” says the Editor of that Journal, “ how troublesome is the purging in this complaint, and how even enemata are often speedily returned. This seems to have been the great subject of the Doctor’s meditations, and constitutes the great triumph of his genius. Well can we imagine the exultation of his *heureka* when the bright idea struck him, amid his contemplations on the fundamental nature of the malady. Others had wasted their efforts in attempting to control the action of the bowels by various medicines ; *he* resolved to go directly to the point—to *bung up his patients*, and fasten the plug with a bandage,—

as we wire down the cork in a bottle of ginger beer ! Such, in sober seriousness, is the only proposal in Dr. Clanny's mode of treatment which has the slightest claim to novelty, and therefore we presume that it formed the subject of his correspondence with the Lords of the Council. Blind and ignorant government ! not to purchase such important novelties—not to reward so great a discoverer !

PRESERVATION OF HEALTH IN THE CITY.

THE ordinances of the City Government for the preservation of cleanliness and prevention of disease during the approaching summer, have been very seasonably published ; and as there is a possibility that the cholera may reach us before its close, we are happy to find that these ordinances are to be rigorously enforced. In one point, they appear to us essentially deficient. It is ordained that all house offal, whether consisting of animal or vegetable substances, be taken away by the city scavengers *no less than twice in each week*, during the months June, July, August, and September. This is not often enough. It should be done during those months *every day*. We have suffered much from this delay in years past, and it has been a subject of general regret that provision should not have been made for a more frequent visit of the scavengers. In very hot weather house offal is generally offensive the second day, and always on the third ; and it is to be hoped that so great an impediment to the comfort, if not to the health of the citizens, will be removed by some further act of the City Council.

Whole number of deaths in Boston for the week ending March 30, 30. Males, 11—Females, 19.

Of consumption, 5—paralysis, 1—lung fever, 3—inflammation on the lungs, 1—scarlet fever, 3—dysentery, 1—infantile, 2—typhous fever, 1—measles, 1—canker rash, 1—influenza, 1—canker, 1—croup, 2—throat distemper, 1—accidental, 1—spasms, 1—old age, 1—unknown, 3.

ADVERTISEMENTS.

HISTORY OF THE CHOLERA MORBUS.

JUST published by CARTER & HENDEE, a Medical and Topographical History of the Cholera Morbus, including the mode of Prevention and Treatment, by SCOUTTETTEN, adjunct Professor at the School of Medicine at Strasburg, member of the Royal Academy at Metz, &c. &c., with a Report read at the Royal Academy of Medicine at Paris, Sept. 17, 1831. Translated from the French, by A. SIDNEY DOANE, A.M., M.D. m14

REPORT OF THE ROYAL ACADEMY OF MEDICINE to the Minister of the Interior, upon the Cholera Morbus, published by order of the French Government. Translated from the French by JOHN W. STERLING, M.D. Just received by CARTER & HENDEE. March 14.

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[NO. 9.]

PAROTITIS MERCURIALIS.

Observations upon the Nature and Treatment of Parotitis Mercurialis.
By GEORGE R. MORTON, M.D., of Coshocton, Ohio.

IN the wide range of research and discovery, which pathological science has opened to its professors, the glandular system, in its anatomical structure, its diseases, and their remediate management, has attracted a large share of the attention of medical writers, especially of the present day. The subject has been investigated with the keenest discrimination, by men whose names stand high in our esteem, and whose talents have elicited a fund of knowledge of the most practical usefulness.—The mysteries with which early pathologists have enveloped it, are fast disappearing; and a theory more consonant with its important functions has arisen, which bids fair soon to reach perfection. But great as have been the discoveries, and essential as are the alterations which these have introduced into the treatment of glandular disorders, much yet remains unknown and uninvestigated, or at best but imperfectly noticed and understood. It is thus with the disease in question. We have searched over the works on medicine, both ancient and modern, and have looked in vain for any author, whose writings would lead us to infer even the slightest acquaintance with it. If they have described, accidentally, any disease at all approximating to it, they have noticed it as a symptom sometimes consequent upon, and connected with “malignant and pestilential fevers;” and have stumbled over it, like Clio of old, without the least idea of its true character and interesting nature. None, however, have noticed it as a distinct and peculiar disease, *sui generis*, and as such deserving attention. As such, we intend to describe it; not as a *new* disease, but as one whose rare occurrence has rendered it unnoticed, notwithstanding its singular features and terrible fatality. In endeavoring to introduce it to the notice of the medical profession in general, we are not anxious to arrogate to ourselves the palm of originality—but are willing and proud to rank ourselves as subalterns in the task. To our friend Washington L. Atlee, M.D., of Lancaster, Pa., belongs the honor of having first collected and arranged whatever information we may, in the following pages, present, in an inaugural Thesis, laid before the Faculty of Jefferson Medical College, in 1828. Though we differ from him in some particulars, which at a future day we may notice, yet we

embrace with pleasure this occasion for testifying our sincere respect for his sterling talents and laborious research.

Nosology is now so indispensably a part of the science of medicine, both from its convenience and utility, that we are somewhat bound, as true disciples of Hippocrates, to give our subject "a local habitation and a name" among the long list of disorders to which "flesh is heir." We would, therefore, designate it by the title of *Parotitis Mercurialis*—and define it as a specific, distinct, and peculiar inflammation, originating in and primarily affecting the parotid gland; and which, if suffered to run an undisturbed course, speedily ends in gangrene, mortification, and death. The distinctive term *mercurialis*, as our knowledge of the disease progresses, may be considered objectionable; but in the present situation, we are disposed to prefer it to any other we can at this time suggest.

Symptoms.—Our present limited acquaintance with this truly appalling and singular inflammation, and the paucity and unfrequency of cases, debar us from giving so full and distinct a detail of the attendant symptoms as we could desire. We will, therefore, confine ourselves to a sketch of the most prominent, and such as cannot be easily mistaken by an observant eye, especially when considered in connection with one another. From the few cases that have fallen under our own observation, or have been communicated to us by our friends, we have never known parotitis mercurialis to exist as a primary, independent disorder, or under any other circumstance than as a sequent of other diseases, particularly *febrile*, where *mercury* has been exhibited in the process of cure. When, therefore, in cases of febrile or other disorders, (where mercury has been administered,) arrived at that stage where the patient is just lingering between disease and convalescence, he complains suddenly of a sense of swelling beneath and in front of the ear, extremely tender upon the slightest pressure, either of the finger or of the pillow, rapidly increasing into a circumscribed tumor, which is hard, painfully lancinating, and spreading anteriorly, with pain on every motion of the jaw, we may, without hesitation, set it down as a case of genuine parotitis mercurialis. The enlargement of the parts is exceedingly rapid in its advancement, and speedily involves the surrounding structure in its disease. Extending, in a few hours, over the whole size of the head, affecting the palpebræ, the base and angle of the lower jaw, and the side of the neck; it embraces, in its fearful progress, the connecting cellular tissues of the neighboring parts—the periosteum, the muscles, the parenchymatous substance of the gland itself, until the whole is one agglutinated mass of inflamed and diseased matter. The skin over the tumor is red, smooth, and glossy; and, when felt by the hand, emits a heat which conveys the sensation of being pricked by needles, to the experimenter. The tension of the skin is very great, and the swelling resembles, in appearance and color, at least in some degree, an inflamed spleen, covered by a serous membrane. As the disease advances, the pain becomes excruciating, of a lancinating, burning character: the process of deglutition becomes difficult and painful: the voice is paraphoniac: the countenance is flushed and livid, and the sense of strangulation is oppressive. The tumescence having reached its acme, the pain most usually subsides, or is not complained of: the head is affected with a dull, heavy feeling: the tumor it-

self becomes livid : deafness of the ear of the affected side ; and finally, a low, muttering delirium, with other symptoms of an oppressed brain, and a sinking condition of the system, supervene. The tumor now becomes somewhat soft, and fluctuation is perceptible : a gangrenous supuration ensues : the abscess bursts and discharges, generally in small quantities, a sero-purulent matter. Contrary to what might be expected, no mitigation of the symptoms appears : the central or glandular portion of the tumor still continues firm and hard : sloughing of the cellular tissue, resembling wet tow, takes place ; and the pulse, which, in the beginning, was hard, quick, and contracted, is now small, weak, and exceedingly rapid, beating as high as 150 or 160 in a minute. The disturbed condition of the cerebral system, instead of abating is increasing, and the patient sinks from exhaustion and debility ; or, in case of the abscess bursting inwardly, from strangulation. If undisturbed, the disease generally runs its course in four or five days.

Such are a few of the most prominent and characteristic features of this terrific malady, which a cursory and limited attention to the subject has enabled us to present.

We have never known it to occur during the continuance of an active pytalism ; but only when the constitutional effects of mercury had, in a great measure, subsided, or entirely ceased. An active pytalism is, however, not unfrequently known to appear, when the tumor is about subsiding, and becoming soft and less painful. Both parotids may be similarly affected at one and the same time ; but the commencement of disease in each is never simultaneous : several hours always intervene between the periods when inflammation is developed in the glands of the opposite sides.

Rationale Symptomatum.—If we examine attentively the symptoms which our partial observations have enabled us to enumerate, we shall find cerebral derangement one of the earliest and most lasting. This, (though probably owing, in some slight measure, to the peculiar state under which the system is laboring at the moment of attack, and during its continuance,) is no doubt chiefly caused by the direct effects of the accumulation of retarded blood, upon the substance of the brain and its meninges. The natural consequence of the rapid enlargement of the tumor is, to obstruct the free circulation of the blood in the cervical vessels, by its mechanical pressure ; but the supply through the carotid arteries is equally impeded with the exit of fluid through the jugular veins. Of course, we are obliged at once to seek further for the explanation of this symptom of engorgement ; and we find it readily by adverting to the fact, that while the removal of the surplus blood by the jugular veins is much obstructed, or almost cut off by the tumor, the brain is receiving a full supply through the vertebral arteries, whose long canal protects them from any injurious impression. The brain, therefore, is subjected to violent oppressions, by the superabundant and unnatural quantity of the nutrient fluid, and, as a reasonable inference, its functions become disordered, and its energy enervated. *Deafness*, such as is attendant upon this complaint, may be produced, either by the direct effects of pressure upon the Eustachian tube, or by the paralysis of the nervous system, originating in cerebral derangement. The mal-condition of the nervous

system will also readily account for the *cessation of pain* on the arrival of the tumescence at its acme.—The explanation of the alteration of the voice ; the sense of strangulation ; the difficulty of deglutition, must all be sought for in the mechanical effects of pressure. But why does ptyalism so frequently occur towards the termination of parotitis mercurialis, especially when the disease is likely to assume a favorable issue ? To answer this question correctly, we must refer to the state of the general system at the commencement of diseased action. We have distinctly stated in our exposition of symptoms, that parotitis mercurialis *never* originates during the progress of a ptyalism ; and that a mercurialized condition of the body is absolutely and indispensably necessary for its existence. As far as the scope of our observation has extended, we know of no single case, unless as connected with, or consequent upon pyrexia. Now, from the well known and distinct effects of a febrile diathesis, and of a mercurialized state of the system, upon the exhalant orifices of the secretory vessels ; and from the generally received Hunterian principle, that two diseased actions of a general character, cannot co-exist at one and the same time, in the same person, we can readily perceive why ptyalism is not a symptom of the inflammation in question. In this disease, pyrexia is always present, previous to its acme, either in a general or a local form. Mercury may be exerting its specific influence, in the latter case particularly, upon other glands, while the parotid itself shows not the slightest evidence of its action ; but the moment the local phlogosis subsides, it then appears.

Diagnosis.—Fortunately for us, Parotitis Mercurialis can scarcely be confounded with any other affection of the same gland. Let this one rule be invariably borne in mind, and we can never be mistaken, that it *never* occurs as a primary disease, nor in any case can possibly exist where the system has not been under the influence of mercury in some form or other, for the cure of the previous malady. The suddenness of the attack, the extraordinary rapidity of its progress, the excessive degree of the inflammation, the acute lancinating pains by which it is attended, the general constitutional derangement, &c., all serve to point out its real and dangerous character, in contradistinction to cynanche parotidea ; and the cold abscesses of the French, the critical abscesses of fevers ; the only two diseases with which it can possibly be confounded, by the most Boëtian stupidity.

Prognosis.—The prognosis in this disease is most generally unfavorable. If 24 hours have elapsed from the period of attack, until the application of remedial agents, the condition of the patient is highly critical. Every moment of delay adds to the certainty of death. If suppuration ensues, or the collection of purulent matter cannot be induced to evacuate externally, the case is almost hopeless, and the physician need hardly resort to any other than euthanasial remedies, to soothe the sufferer's last hours of agony and distress. The occurrence of a ptyalism is always favorable. The ratio of deaths from this disease, to recoveries, is, as far as we can judge, as that of four to one.

Treatment.—In order more plainly to elucidate our therapeia, the medical treatment may be considered under three leading indications : 1st, of subduing the general pyrexial excitement when present ; 2d, of

procuring the speedy resolution of the tumor ; and 3d, of supporting the system during collapse.

Of the 1st, general pyrexial excitement is not always attendant upon parotitis mercurialis ; but sometimes it is present, and demands remedial attention. When this is the case, the usual antiphlogistic remedies must be resorted to at once. Venesection, prompt, and decisive, and carried to the extent of making a powerful impression on the system, and followed by active purgatives of a drastic nature, form the principal sanatory agents. If general nervous irritation become very violent, opiates, such as Pulv. Ipec. C., belladonna, hyoscyamus, acet. morph. &c. may be employed with some advantage. But it is to the 2d indication, that we are to turn all our attention and discrimination. We have already stated that the disease is peculiarly rapid in its progress ; and proportionate to the severity of the inflammation, is the speed with which it terminates in its highly morbid character. No time should be lost—for every hour adds to the certainty of its fatal issue. So short, indeed, is the period for the employment of therapeutic agents, and in which the disease may be considered as under the control of medicine, that the delay even of a few hours may render abortive our most potent drugs, and seal the doom of the wretched victim. When, therefore, we are called to a case of this kind, our first resort should be (after the administration of antiphlogistic means, if necessary) the application of blister, covering the whole of the inflamed surface. As the surface of the affected parts is generally extremely sensible, it would be advisable to premise its application by some stimulant article, to excite the parts, such as hartshorn, decoct. of canthar. in spts., tereb., aq. ammon., or even, in very desperate cases, nitric acid. It is only, however, in the first 36 or 48 hours, that epispastics can be of any real service. If they fail to have the proper effect on the first application, they should be frequently renewed, and assisted by the use of leeches. Should we fail in procuring the resolution of the tumor by this practice, and suppuration becomes unavoidable, or should we, unfortunately for the patient and ourselves, be called in just as this is commencing, we must endeavor, by every tangible means, to solicit it to the external surface, and prevent that most deplorable of all issues, the evacuation of the abscess internally. For this purpose, warm emollient poultices, renewed before they cease to return their warmth, should be constantly and immediately employed. The tumor in this situation is to be closely watched ; and should there be, or should there not be a pointing of the abscess, we ought to open it at once, with the caustic or the lancet, after the lapse of a few hours, preferring the *hazard* of death by debility and exhaustion, to the *certainty* of it by suffocation, should the abscess burst inwardly.

During the formation and continuance of this suppurative and gangrenous stage, it is, that our third indication must be imperatively and rigidly followed. To preserve the system from sinking beneath the exhaustion and collapse, we must support it by the employment of stimulants and tonics, both of a medicinal and dietetic character.

Throughout the whole course of this disorder, the bowels are in a constipated condition, and it is indispensably necessary to correct this. For effecting this object, we know of no better agent than the following :

—R. sulph. sublim. oz. ss. Pot. sup. tart. dr. vi. ij. ; one third of this to be given every hour, until purgation is attained. It should be employed every day.

Should the patient fortunately survive, the abscess, after sloughing, is to be treated as a common abscess of any other part.

Causes.—From an attentive perusal of what we have here laid down, and from our cases, it must be evident that there are in this disease two active and predisposing causes,—mercury, and fever, or some other previous general affection. It is not necessary for us to enter into any prolix discussion of the respective effects of each upon the system—they are well known and generally understood. Suffice it to say, that we have in them two powerful agents, both causing a morbid impressibility, though acting in opposite directions in its production. They cannot exist at the same time ; and whichever of the two prostrates the other, the debilitating and irritating consequences of the one will be heightened by the present or previous effects of the other. Yet, unless the relaxing and disgorging power (not the specific effect) of mercury prevail, we believe that the disease in question can never occur. To explain : “ If mercury is exhibited in fever, so as to produce its *specific* constitutional effect, agreeably to the law of *unities* the fever must yield ; but if this point is not attained, it will, in some measure, still continue. In the first case, the vanquished fever will have added to the susceptibility of the frame ; and in the latter, the mercurialized state of the body will operate in the same manner.” Thus it is, then, that these two antagonising powers, acting upon a syncratical principle, lay the body open to the action of morbid agents from without. It is in this condition of the system, that the *exciting* or *proximate* cause, *cold*, acts with such terrible energy. In every case we have adduced, and every one we have seen, *cold*, either through an aqueous or aerial medium, had acted upon the part. We need enter into no labored effort to prove, that as cold is a powerful remedy in the removal of diseases, it must, of necessity, be equally efficient in producing them. One thing, in our mind at least, is certain, and that is, that local inflammations owe their origin to this agent, far more frequently than to any other. In relation to the subject before us, we are fully convinced, from our own limited experience, that *cold*, in one or other of its forms, acts as the proximate and exciting cause in the production of Parotitis Mercurialis.

In closing our remarks upon this interesting disorder, we will enter into the following recapitulation : 1st. That parotitis mercurialis never occurs as a primary, idiopathic disease ; but, perhaps, in every case after a fever : that a mercurialized condition of the system is essentially requisite for its existence ; and that cold is an indispensable agent in its production. 2d. That its progress is extremely rapid : its curable condition is very limited ; and that the prognosis is generally unfavorable. 3d. That the usual discutients are useless, and worse than useless, as they waste valuable time : that the only safe reliance is upon the course we have prescribed ; and that the tumor should always be opened in preference to running the hazard of internal rupture.

We cannot take leave of our subject without expressing an ardent solicitude, that so peculiar a disease may be more closely investigated by men of superior talents and longer experience.

Note.—The editor of the *Western Journal*, in which the foregoing paper was first published, appends to it the following note :—Cases of this kind, we think, are unfrequent : but we have met with one or two, somewhat analogous, under circumstances very similar. They occurred in old and debilitated habits, at the close of an attack of bilious fever, in which calomel had been administered, not very liberally, but to a greater extent than we would again be willing to give it under similar circumstances. Very slight salivation ensued, which was suddenly arrested, and the tumor quickly appeared, excessively painful, and very tedious, but at length terminating favorably, by healthy suppuration. Some unfavorable remarks were made, though we thought unjustly, as we considered the affection owing to some idiosyncrasy, which we could neither foresee nor control,—the calomel, probably, from some accidental circumstance, having affected the parenchyma of the gland, instead of its secreting vessels. We suspected, at the time, that the too early use of the quinine, by introducing a slight continued form of febrile irritation, with a red, dry tongue, had some influence in producing this result. The course pursued was, bitters, aloes and rhubarb, as a laxative, fomentations and poultices to the inflamed gland.

LEUCORRHŒA.

Leucorrhœa, with Affection of the Knee simulating Rheumatism. By
MR. SMART, of Cranbourn.

MRS. W. aged 32, a delicate person, a keeper's wife, always subject to irregularity of menstruation and confinement of bowels,—mother of three children, with the interval of six years between each birth,—about two months ago, in consequence of fatigue and damp, was seized with menorrhagia and leucorrhœa ; she kept about for a fortnight subsequently, and then was obliged, with an apparently inflammatory swelling of the right knee, to take to her bed, where she has been ever since.

She was attended at first by a gentleman who treated her complaint as acute rheumatism, without relief. Five weeks ago she became my patient, and I fell into the same error. The joint was considerably swollen ; very painful—constantly so, but more at night ; very tender ; *not* red. She said it was preceded by flying pains in various parts. She took colchicum, calomel with opium, steel, purgatives, but all without benefit. By this time I well began to doubt the correctness of my diagnosis, and my attention was directed to the situation and course of the pain she suffered in the whole extremity. A small blister was put on the inside of the knee, the surface dressed afterwards with morphine ; but this, with leeches, lotions, and fomentations, was without avail. Her bowels were kept regular under the use of castor oil. She latterly informed me of a copious fœtid discharge from the vagina, with great pain in the loins, which had existed a long time. I found the os uteri turgid and very tender. Then it struck me that the disease of the knee might be connected with this affection. Some femoral glands were enlarged and tender, and she pointed out the course of the pain from *Poupart's ligament*,

along the inside of the thigh, round the inner condyle of the femur (where it was most acute) to the front of the tibia, down to the foot.

October 2d.—R. Argenti Nitratis \mathfrak{Dj} . solve in Aquæ 3vj. to be applied to the cervix uteri several times a day, by means of a piece of sponge attached to the end of a bougie.

5th.—Remarkable change for the better. The pain, with its depressing influence, she had borne so long, being *now entirely removed*, her spirits and strength are regaining their natural elasticity. She is able to bend the joint, which she had not done for the last five weeks; she can change her posture in bed with facility; the slightest motion before caused acute pain. The knee feels stiff; less swollen; less tender. The lotion gave no pain.

Pergat in usu lotionis.

12th.—Is down stairs; sits up all day; complaining of great weakness in the loins; discharge “next to nothing;” not fœtid; the knee of its natural size, but she is unable to extend the leg; the thigh still tender; occasional darting pains down the leg to the foot; appetite good; bowels regular.

Pergat.

24th.—Gaining strength; walks lamely.

Nov. 17th.—After straining herself in lifting, &c. discharge is apt to gush from her. Lumbar weakness nearly gone.

29th.—No more discharge; has had daily a “sign” of the catamenia; has left off using the lotion.

Dec. 26th.—Quite recovered; has had a regular return of the catamenia. The limb sound.

Observations.—This is a case of irritable action of the lumbar nerves, occurring in a susceptible constitution, accompanied by profuse leucorrhœa and an inflammatory state of the neck of the womb, which in all probability re-acted on the original cause, exasperating it, prolonging it, and tending to propagate its morbid actions to parts remotely situated. The saphena nerve bordering on, if not actually in, an inflammatory condition, was the medium of this communication. In its course over the knee joint, being tied down by the tendinous fibres spread over the capsule, that restraint would prove an additional exciting cause of irritation to the neighboring structures.

Hence a disease of the knee-joint closely resembling inflammation, which, however, I would regard more in the light of neuralgic irritation, differing from inflammation, in resisting every method of treatment, but that which was adapted to remove disease from a distant part.

This case, too, bears testimony to the good effects of the nitrate of silver, as recommended by Mr. Jewell.—*Medical Gazette*.

For the Boston Med. and Surg. Journal.

TREATMENT DEMANDED BY MALIGNANT DISEASES.

THE insusceptibility of the system, in malignant diseases, to the curative action of ordinary remedies, in their usual doses and frequency, is incre-

dible to all who have not been familiar with such obstinate maladies. It is also equally inconceivable by the inexperienced, what enormous quantities of the most active articles of the *materia medica* may sometimes be taken in such cases, not only with impunity, but with the most palpable relief. Every physician knows, or it is his duty to know, that in spasmodic jaundice, some cases of colic, common cholera, and tetanus, opium sufficient to destroy life in a healthy man, or even in a moderate disease, is frequently taken with the most obvious benefit, and the manifest recovery of the patient. These are all spasmodic diseases.

What is there to prevent us from employing liberally, in fevers, the same remedy, upon the same principles, when they are attended with the same symptoms, that indicate the free employment of the article in spasmodic complaints? That there is nothing to forbid it, but that the practice is imperatively demanded, the whole history of *typhus syncopalis* or spotted fever, from its first breaking out at Medfield, to its treatment in the State of Ohio, three or four years since, most amply demonstrates. This disease gives the system such a shock, and so paralyzes the vital powers, during the forming, cold, or torpid stage, that there is either no subsequent period or stage of reaction,—or it is so feeble and irregular, that life cannot long be sustained without the most energetic, artificial excitement and support.

The case is exactly parallel in cholera. Dr. Barry and others have shown, that it is a febrile disease, in which the greatest danger exists, during the oppression or exhaustion of the vital powers, in the first stage. It is necessary to overcome the spasmodic and other exhausting symptoms immediately, to develop the existing powers of life, and to restore the waste of vitality, as soon as possible. For this purpose, *opium*, in large and repeated doses, is certainly the only remedy to be depended on, though it unquestionably demands the powerful aid of all proper adjuvants. External heat, rubefacients, epispastics, oil of turpentine or of capsicum, vapor of burning alcohol, &c. should be efficiently applied to the surface of the body and extremities. Internally, the opium is to be assisted with hot diluted alcohol, essential oils, capsicum, aromatics, and infusions of pungent, stimulating plants, all these carried to as great an extent, unless the urgent symptoms yield, as the stomach will bear. Foreign authors are but very poor guides, and we must resort to American writers if we wish to learn the full extent to which we may safely and surely carry our remedies, and particularly opium, in obstinate and sinking cases. It is nevertheless a strange fact, that our practitioners are generally much less familiar with our own writers, than with foreign authors. It would seem, that most of our physicians, who reside in parts of the country which have been exempt from *typhus syncopalis* and other malignant affections, have paid very little attention to the subject, and would be very indifferently prepared to meet such a formidable disease as epidemic cholera. If this is the fact, they ought immediately to look up everything that has a bearing upon analogous complaints, and no longer suffer themselves to rest satisfied with the imbecility of European practice. The false maxim, that “nothing is safe in disease, that might not be borne in health,” though its fallacy is exemplified in every severe case of common cholera, colic, croup, spasmodic icterus, and tetanus, seems

still to hang like the weight of a millstone about the necks of foreign physicians, in their treatment of the present epidemic. In violent cases, their usual practice can certainly have no appreciable effect. As well might Wellington, at the head of a sheriff's *posse comitatus*, or of a corps of cockneys armed with sword canes and pocket pistols, have contested with Bonaparte on the field of Waterloo. We have happily, within the reach of every practitioner, the most ample accounts of the kind of tactics, and the weapons, which American medical combatants have successfully employed, for more than a quarter of a century, in resolutely meeting and conquering a most deadly foe. CELSUS.

Communicated for the Boston Medical and Surgical Journal.

AMERICAN MEDICAL WRITERS.

IN conversation with a very intelligent man of business of Rhode Island, a few years since, I was forcibly struck with one of his remarks concerning the degree and severity of several epidemics, that had at various times prevailed in his state. He observed, that if fevers had been as general, and attended with the same obstinacy and mortality, in Providence, as in many smaller towns and villages, it would have been considered that a pestilence was prevailing; business must have ceased, and the capital, in a great degree, have been deserted. Upon a little reflection, I was convinced that his remark was literally correct, as respects the typhoid diseases of New England and the Middle States, the yellow fever excepted. The cholera infantum, and a few other diseases of children, which are generally agreed to be more unmanageable and fatal in cities, than in the country, I did not take into the account, in revolving in my mind an outline of the history of epidemics in this country, as far as they had come to my knowledge.

I recollected, that the malignant sore throat, of which Douglass has left us an account, that about a hundred years ago made such extensive havoc in many parts of New England, was comparatively mild and manageable in Boston. The fever mentioned by Dr. Warren in his *Treatise on Mercury*, which was supposed to have been contracted from the French fleet, during the revolutionary war, does not appear to have ever spread generally through the city, though it remained in Boston a long time. In the last war, pneumonia typhodes, while it was sweeping away the soldiers at Greenbush by scores, across the river in Albany was not much severer than an influenza. The same was the fact with New York, while the disease was raging among the troops on the neighboring islands. I believe it holds true, with respect to all the large cities, during the prevalence of that disease almost over the whole country, that severe cases of it were uncommon in the larger towns and cities. About the time of the death of Dr. Rush, typhoid diseases were somewhat prevalent in Philadelphia, but they were certainly less common than in the country, and in general not so severe. Sometimes, one or two low or filthy streets in a city may be sickly, as was the case some years since with the Banker street fever in New York, and the endemics at Fell's Point in Baltimore; but a large share of the whole

population has probably never been sick of a malignant disease, at one time, through any one large city, except during the prevalence of yellow fever. The spotted fever, or typhus syncopalis as it is now much more appropriately denominated, though it has occasionally appeared in some place or other, almost every year, in some one of the New England States, or in the State of New York, Ohio, or other parts of the country, for twenty-six years past, it is believed, has never raged violently or extensively in any village containing a *compact population* of more than two or three thousand ; and generally in these, as in Hartford in 1808 and 1809, it is confined to narrow limits. I have never known a malignant dysentery, or typhus, or pneumonia, or cynanche, generally diffused over a dense population of five thousand. I will not pretend to say, that during the present century, which on the whole, in comparison with the same number of years of the preceding, has been rather a sickly period, there has never been a solitary exception ; but I am persuaded that the remark of my friend, with respect to Providence and its vicinity, will hold good, as a general rule, in all the New England and Middle States.

Now the common inquiry will be made, *What then ?* What is your inference ? My first inference is, that as the typhoid diseases of cities have actually been milder, or the severe cases of them have been rarer, than in the country, so the practice has been milder, and less energetic means have been demanded, to produce an equally fortunate result, in a given number of cases. Foreign practice has consequently, with very inconsiderable variations, been applicable to most of the diseases of our cities. It has not, therefore, been necessary for city practitioners to pay much attention to the writings of our own countrymen, especially since there was inconvenience in it, as not many of them have been collected into Treatises, they being mostly scattered thinly through the periodicals of the last thirty years. As our large towns are the resort of men of talents, they give the tone to everything, and more particularly to literature and science. For these reasons, it has not, as yet, become fashionable to be familiar with American medical writers. Indeed, it has not been very necessary to consult them, except by those physicians who have had to treat diseases upon which they could find little or no light in foreign books.

There is hardly a symptom, perhaps not a single combination of symptoms, to be found in the malignant cholera, that our physicians, in some part or other of the country, have not been familiar with, and successfully met, during the epidemics of this century. Let their writings be collected and studied. Let our young practitioners be made acquainted with the diseases of our country, and not rely altogether upon foreign authors. The venerable Thacher has done much to diffuse a taste for consulting our own writers, and in his *Medical Biography* will be found a reference to most of their works. Dr. Calhoun, of Philadelphia, in his portion of the editions of Gregory's *Practice*, has made the same honorable mention of his countrymen. These writers will serve, in a good degree, as indexes to the various American authors that are worth consulting on the treatment of low, sinking, typhoid diseases. Now, if ever, while we are threatened with pestilential cholera, and the

public mind is alive upon the subject, is the time to consult the works that have the greatest bearing upon analogous complaints, more especially since we find that the present epidemic has baffled the greatest foreign skill and science.

CULLEN.

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SCARLET FEVER.

At a period when the attention of our readers must have been so generally directed to this malady as at present, they will not fail to peruse with some interest an account of the plan of treatment pursued in Germany by M. Liebartz Stieglitz, of Hanover, the success of which has given it in that country very considerable reputation. There is indeed nothing very novel either in the theory or practice of Dr. S. In both he shows himself a faithful follower of Hippocrates; and the simplicity of his therapea, his careful distinction of the successive stages of the disease, and his reliance on the vis medicatrix, while they distinguish him somewhat from the heroic practitioners of the day, unite to mark him a true disciple of the old school.

The commencing treatment, according to this author, should be an emetic substance in divided doses at intervals, so as to act, not violently, but for a long period. In administering this, it is necessary to watch its effect, lest, in place of vomiting, it cause diarrhœa, a consequence which cannot fail to be pernicious. When this result is threatened, it is better to employ ipecacuanha, with the addition of the tartr. antimon. than the latter article exclusively. One emetic administered in this manner will be found ordinarily sufficient. Some hours may now be allowed to elapse, during which the patient will recover from the exhaustion and likewise be benefited by the action on the skin which the vomiting will rarely fail to have produced. The next step will be to produce an action of the bowels. For this purpose the best article is the sulph. magnes. dissolved in a large quantity of water, and sweetened with oxymel. Three or four stools in the twenty-four hours are sufficient; a few more will do no harm, but it should be seen that the medicine acts with gentleness and moderation. For infants, a milder cathartic may be substituted. The diet must be very light, consisting of succulent fruits and light vegetables, and for drinks, vinegar, the acid of raspberry or citric acid dissolved in water.

Patients support this regimen very well for two or three days, and the skilful practitioner will be satisfied to watch its effects; not allowing

himself to be surprised or embarrassed, though the disease lose nothing of its violence and the symptoms increase in severity ; because, strong in his individual experience and that of others, he knows that the best therapeutic method consists in moderating rather than interrupting the progress of the malady, and thus securing it a safe termination, unless circumstances imperiously demand more active treatment.

At the period now mentioned the disease may either preserve its sthenic character, or become adynamic. In the first case, if nothing disturbs the course of the symptoms, it will be sufficient to administer small doses of sal ammoniac, and to keep the bowels open by injections if needed. If the symptoms are aggravated, if the pulse become more rapid and the heat increase, if the patient give evidence of anxiety and have severe and repeated attacks of hallucination, this will be the moment to administer sulphuric acid as a beverage. This should however be at once suspended, if a tendency to critical evacuation be observed, such as bleeding at the nose. In this case, we must administer, morning and evening, a grain of mercurius dulcis, and place sinapisms on the lower limbs, without omitting the laxatives or the light diet.

The therapeutic system must however be wholly changed, when from the cerebral symptoms which present themselves, we have reason to fear the occurrence of asthenic inflammation. The approach of this formidable affection is announced by slight tinglings in the ears, occurring frequently but of short duration ; deep and prolonged slumber ; watching, with giddiness and periods of delirium, with headache in the intervals ; evident cerebral congestion ; diminished urinary secretion, partially replaced by sweats, and other well-known symptoms which mark the passage from sthenic disease to adynamia.

In this state of things evacuants must at once be discarded, and even leeches are dangerous. Beside a generally stimulant treatment, musk, infusion of snakeroot, with ether ; sinapisms, and especially the use of mercurials, both internally and in friction, are remedies of much efficacy. Mercury is the best remedy in asthenic inflammations, especially those of the brain and liver. It acts sometimes by purging, sometimes by salivation, and often produces beneficial effects without any obvious evacuation. Children are peculiarly likely to sustain and be benefited by the action of mercury, without diarrhœa and without salivation.

THE NEW ENGLAND FARMER.

The Effect of the past Winter on Fruit Trees.

WE copy the following notes on the coldness of the past season from the New England Farmer, published in this city by Mr. Russell—a work we peruse every week with great interest and pleasure, and never without adding to our little store of useful knowledge. This paper has among its

contributors the most enterprising, intelligent, and distinguished practical agriculturists and horticulturists in other parts of the country, as well as New England. If any of our readers are, like ourselves, curious of information on the subjects on which it treats, or, more fortunate, are practical farmers or gardeners, they cannot fail to derive satisfaction and profit from its rich and varied contents.

About three weeks ago, a communication appeared in the *Farmer* from the Hon. John Lowell of Roxbury, and another from Salem, in which the fact is stated that the fruit trees, within the observation of these gentlemen, have suffered very great, and perhaps permanent injury from the severity of the past winter. All the growth of the last season is killed, and there are reasons to apprehend that the trees themselves will not recover from the shock for several years. Mr. Lowell accounts for the fact in a very plain and philosophical manner. The heat of the summer was so great and continued so long that "the sap remained up and not inspissated, till the 30th of November. The severe, unusually premature severity of December, burst the vessels of the plants, filled as they were with a watery fluid." A similar cause has been assigned by other writers, so that although the trees may leaf out well the coming season, yet, the return vessels or veins being ruptured, the result in the autumn will be of the same nature as a general girdling. Since then, the same fact has been stated in communications, from Messrs. Edwards of Springfield, Me., Wheeler of Framingham, and other gentlemen residing in different parts of New England. Thus it appears that vegetable as well as animal life has encountered, at a serious loss, the unparalleled severity of the winter that has just terminated.

The following is the account referred to, which is contained in a communication from R. Green, Esq. of Mansfield.

MR. FESSENDEN—The past winter has been long and cold. It commenced the last of November. December was colder, in the aggregate, than any previous one within the recollection of any man with whom I have conversed on the subject. From the first to the last of the month, excepting the 24th, there was a continued frost. On the 24th, the thermometer stood, at sunrise, at 25 degrees above zero, and at 12 o'clock a little thawing took place for two or three hours, and some rain fell in the meantime. According to my thermometrical register, there was, during this month, more severely cold weather, in the whole, than in any winter since 1823, before which, I kept no accurate account of heat or cold. January was a cold month. February was comparatively mild. March commenced cold, but soon moderated. During the winter, snows were frequent but small. From November 28th, 1831, to February the 28th, we had twenty-four snows, say from one inch to six inches in depth; one in November, nine in December, six in January, and eight in February.

Whenever the mercury stands at or below zero, the weather may be considered severely cold.—The following table will show the very cold days during the past winter, and the coldest part of the day observed:—

1831, Dec. 8, sunrise	2	} degrees below zero.	1832, Jan. 2, sunrise	2	} degrees below zero.
11, "	2		23, "	0 $\frac{1}{2}$	
13, "	4 $\frac{1}{4}$		26, 10 P. M.	7	
15, 10 P. M.	6		27, sunrise	12 $\frac{1}{2}$	
16, 5 A. M.	6 $\frac{1}{2}$		28, " say	10	
18, sunrise	0		Feb. 6, "	4 $\frac{1}{2}$	
22, 9 P. M.	5		11, "	0	
23, sunrise	2		17, " say	0	
31, " say	10 $\frac{1}{2}$				

It has been said, that the latent fruit of the peach cannot endure the cold so intense as to sink the mercury eight degrees below zero. Although my peach trees promised much last autumn, yet, as far as I have examined, the fruit is completely destroyed.

For several years past, the greatest degree of cold in this vicinity, was as follows :—

In 1828, 1 degree above zero. Peaches abundant and fine quality.

In 1829, 6 $\frac{1}{2}$ deg. below zero. Peaches, none.

In 1830, 10 deg. below zero. Peaches, none.

In 1831, 6 deg. below zero. Peaches very few and poor quality.

A few days of warm weather in December or January, may cause the buds to make an effort to evolve ; in which case, a less degree of cold might destroy this delicate and delicious fruit.

R. GREEN.

Mansfield, March 16, 1832.

Action of Ammonia on the Vaccine.—M. Nauche, of Paris, has given an account of some recent experiments of his, with regard to the power of ammonia over the vaccine virus. 1. Upon vaccinating with a lancet charged with the virus, but which had been exposed for some seconds to the vapor of ammonia, no development took place. 2. Inoculating one arm of the same patient with vaccine exposed to ammonia, and the other with pure vaccine, not only did no development take place in the first arm, but that in the second proved very imperfect. 3. After vaccinating a child as perfectly as might be, and in a few minutes afterwards making some slight punctures or incisions with lancets which had been exposed to the vapor of ammonia, the power of the vaccine was so far injured as to render the development very incomplete. These facts, M. Nauche thinks, taken in conjunction with the well-known effects of ammonia in various poisonous and contagious complaints, would warrant a fair trial for the volatile alkali in cholera, both as a preservative and a means of cure. Carbonate of ammonia, in sufficiently large doses, would probably be a valuable medicine in cholera.

FACTS RESPECTING CHOLERA.

FROM the last official report of this disease in London there had been in all 130 cases, and 81 deaths. These occurred in the space of about 20 days. So merciful has been the disease in that great metropolis, that some doubts were entertained whether it were really the same disease as that which has committed such ravages on the continent of Europe, and the excitement respecting it had greatly subsided. The degree of fatality, however, taken in connection with the symptoms, seem to mark its

character most clearly, and its slow progress must be attributed to some circumstances not yet very clearly before the public.

Caution as to Diagnosis.—Prior to death, when it takes place during this stage, the disease sometimes assumes a form well calculated to deceive those not acquainted with its character. The pulse rises, the skin becomes warm and covered with perspiration, the patient expresses his relief, and, perhaps, his full anticipation of recovery; in an hour or two, all is over.

Appearance of Tongue in Consecutive Fever.—The tongue throughout is most frequently moist, and sometimes coated. In general, however, as was observed by Mr. Glenton, it presents a red appearance, similar to what is seen in eruptive fevers. Sometimes the redness is confined to the tip and edges. This is the time at which, in my opinion, the lancet may be most advantageously used.

Blueness not a General Characteristic.—The blueness, so peculiar to this disease in other countries, has not been, by any means, a general characteristic in this. In not one instance in ten, has it assumed that form. The skin of the hands and face often become of a brownish hue.

Choleric Voice.—In the most deadly form of cholera there is a tone of voice, a wail, which once heard, can never be mistaken; by him, upon whose ear it has fallen in the accents of anguish, it can never be forgotten. I have always found it the certain prognostic of death.

Lithotriety.—M. Lisfranc, the distinguished Surgeon of the French Hospital La Pitié, has been lately operated upon, by M. Civiale, for stone in the bladder. A complete cure is said to have been effected.

Whole number of deaths in Boston for the week ending April 6, 33. Males, 18—Females, 15.

Of infantile, 3—lung fever, 2—accidental, 1—consumption, 6—scarlet fever, 2—unknown, 3—paralysis, 2—debility, 1—croup, 1—typhous fever, 2—dropsy on the brain, 1—inflammation on the brain, 1—throat distemper, 1—old age, 1—quinsy, 1.

ADVERTISEMENTS.

THE CEREBRO-SPINAL AXIS OF MAN, with the origin and first divisions of its Nerves. From the French of M. MANEC, D.M.P.; Lecturer on Anatomy and Operative Surgery, &c. at Paris. Translated and revised by L. PANCOAST, M.D. Just received by CARTER & HENDEE. March 7.

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WEDNESDAY, APRIL 18, 1832.

[NO. 10.

DYSPEPSIA.

Physiological and Pathological Observations on the Sympathetic Disorders and Consecutive Diseases of Dyspepsia. By WILLIAM JOHN THOMAS, M.R.C.S., of Liverpool.

THE innumerable and ever-varying symptoms attendant upon derangement of digestion, defy all attempts at systematic classification. Some excellent papers have been written upon the subject, and much information has been laid before the medical public ; and yet we are compelled to confess that a considerable hiatus yet exists even in the historical delineations of the disease ; many peculiarities remain unnoticed, and much further information has yet to be supplied before we can obtain a correct view of the nature of the disease in question.

After the excellent work of Dr. Johnson, which I consider the best extant, we may indeed be pardoned in supposing that little further might be required for the elucidation of the subject. That this gentleman has written well, is universally admitted by all competent judges ; and the high satisfaction which I have derived from the perusal of his practical work demands a public recognition of its excellences, when treating upon a similar subject. My attention has been, for some years back, directed to the subject of derangement of digestion, in consequence of much painful experience of its distressing peculiarities. Having had the unenviable opportunity of scrutinizing the phenomena of indigestion in my own person, I endeavored to trace in my patients the progress of similar symptoms, and sympathies of an identical nature ; in consequence of which investigation, I have deemed it expedient to throw out a few remarks upon the subject, trusting that they may be acceptable to your readers. It is not my intention to make many minute observations upon the most remarkable symptoms ; for these being subjects of daily observation, may not demand so precise a consideration. The eructations of biliary matter, the formation of acid, and the distention of the stomach by containing gases, may, however, require a few observations.

The remarkable phenomena of the formation of acid in the stomach may be adverted to, in the first place. When a dyspeptic invalid has partaken of his ordinary food, the formation of acid commences ; I have remarked, in several instances, that scarcely ten minutes have elapsed from the reception of the food before the acid is perceptible. Some

physiologists have stated that the acid is the muriatic, and that it is secreted by the vasa vasorum of the stomach, and the arterial capillaries which these minute vessels supply ; but I am convinced that in many instances the nature of the acid is materially modified, and that occasionally, instead of an acid, an alkali is produced.

The great question which has hitherto eluded our inquiries is this—By what peculiar process is this acid produced ? Is it secreted, or can it be the produce of fermentation ? From a number of observations, and careful investigations of the subject, I have come to the conclusion that this acid is derivable from three distinct sources : first, I am convinced that a fermentation actually takes place in the *diseased* stomach ; secondly, I believe that the arterial ramifications occasionally secrete an acid fluid ; and, lastly, I apprehend that the production of either acid or alkali may be referred to a chemical decomposition of the ingesta : the primary elements of the food may combine together, and by their combinations form the new constituents of alkaline or acid principles. In the majority of dyspeptic cases, the appetite is good, a craving for food frequently takes place, and faintness will ensue if the demands of nature be not promptly complied with. The result of this morbid appetite is, that the patient partakes too freely of food, and, forgetting the diseased condition of the organ, he distends the stomach until the craving void in the epigastrium is filled up to satiety. The stomach thus becomes morbidly distended with solid ingestum, which immediately paralyses the motions of that viscus, and the phenomena of indigestion appear. The stomach being distended with flatus, the cardiac sphincters are violently burst open, and the eructations of the generated gases ensue. It would be a most desirable experiment if any of our minute chemical philosophers, who have so often illuminated the scientific world by their practical elucidations of complex chemical phenomena, would undertake to analyse these gases. The airs to be analysed might be conveniently received over mercury, and their primary elements and combinations accurately ascertained. A patient who has long labored under derangement of digestion could readily, at any time after a repast, furnish sufficient materials of an æriform nature for the analysis of the scientific investigator. The physiologist might thus ascertain whether the gases produced bore any relative proportion to the primary elements of the food : he might compute the different proportions of the different gases produced by different species of food, and, by this proceeding, in some measure decide the important question whether these invisible agents are actually produced from the food, or secreted from the capillary apertures of the arterial exhalants. From the experiments on digestion instituted by Dr. Wilson Philip and others, we might conclude that the electricity of the brain or nervous fluid exercises a considerable influence over the functions of digestion : but experiments of this description, however laudable the motive for performing them may be, must necessarily be subject to many objections : first, we may consider that an accurate analogy can never be drawn from these experiments upon brutes, and applied to human beings, because we find that a great distinction exists between the two classes of beings. We all know that beasts and reptiles of the earth select food for themselves, which to them is perfectly salutary, but which

to man would be pernicious, deleterious, and poisonous. Secondly, we cannot with propriety suppose that we are investigating the *natural* action of the stomach, when we first cut through important parts to arrive at vital organs, with which the stomach must of necessity sympathise, and which sympathy must originate a disordered process in equal ratio of activity to the sympathetic intensity. The learned and accomplished physiologists who make these experiments may, indeed, prevent vomiting by tying the œsophagus, but I do not perceive how such violent proceedings can possibly procure for us an opportunity of investigating the *natural* process of digestion. The distention of the stomach having proceeded to an extent which cannot be increased, the diaphragm and abdominal muscles contract ; the stomach becomes affected with spasm ; the pylorus is pushed inwards towards the duodenum, and its orifice is torn open ; the gaseous and fluid materials are thus protruded into the duodenum. When this bowel is preternaturally distended with air or increment, the ductus choledochus communis is, of necessity, acted upon by the physical agents, and, from the irritation produced by the distention, the gall-bladder becomes affected with spasm, and bile is thrown out profusely into the duodenum. A specific irritation having been already produced in this viscus, by the acrimonious chyme from the stomach, the pylorus is preternaturally affected, and no longer performs the office of a valve : the contents of the duodenum are therefore regurgitated into the stomach, and this unfortunate organ has now the advantage of the extraordinary stimulus of the bile, added to its own original acrimonious contents.

At this stage of the disorder, some remarkable phenomena generally arise. In the first place, a sympathetic pain is perceived in the occiput : this pain is described as that of a dull, obtuse, and vibratory sensation. In many cases, the affections of the head and stomach alternate in reciprocal participation of morbid action. I shall illustrate this position by a remarkable case. A gentleman complained of this dyspeptic cephalalgia ; it commonly occurred after dinner, when the biliary affections had previously prevailed ; a great degree of acidity was produced in the stomach after each repast, and he was accustomed to neutralise the acid with large doses of the bicarbonate of soda. Upon the neutralization of the acid, the gastric irritation subsided ; but the morbid action was transferred to the cerebellum, as the occipital sensations appeared to indicate. In this case the following experiment was instituted : The patient was instructed to neutralise the acid as usual with the bicarbonate, and, if the irritation of the brain succeeded, to plunge the head into a pailful of cold spring water. As usual after dinner, the acid was formed in the stomach, and when the eructations of concentrated acid, bile, and flatus, proclaimed the prevalence of gastric irritation, he swallowed several doses of the bicarbonate : in the space of five minutes, the disorder of the stomach subsided, and the headache ensued. After the latter symptom had continued for about half an hour, the patient plunged his head into cold water, and experienced an instantaneous relief from the headache. Whilst he was congratulating himself upon the efficacy of this new remedy, the stomach became affected a second time, and the contents vomited partook of the acerbity of “ oil of vitriol : ” the bicarbonate was

again employed, and again the headache supervened. The cephalalgic paroxysm became so intense, that the patient had a second time recourse to the cold bath, to alleviate or repel the pain, when precisely the same symptoms of gastric acidity reappeared, and the unhappy patient threw himself upon his couch in the anguish of unspeakable despair.

During these severe paroxysms of gastric irritability, a cloud of melancholy suspends its deep shadows over the agitated mind ; a dejection of thought, with dark delineations of the prospects of futurity, takes place, and melancholy extends the black mantle of despair over the ideal felicities which had formerly flourished in the sunshine of mental serenity. The patient, under these impressions, invariably views his finances in the least advantageous light, and, although his coffers may be filled with gold, yet he will imagine himself upon the point of pecuniary insolvency. It will readily be admitted that these accumulated irritations in the stomach cannot long exist without the adjacent parts partaking of the disorder, and accordingly we find a tenderness upon pressing the epigastrium, extending over the hypochondriac regions. This pain upon pressure is not exactly indicative of inflammation ; in many instances it appears the result of proximate irritation alone, for the pain subsides as the dyspeptic paroxysms disappear. This spontaneous subsidence of the fulness and tenderness of the epigastrium is, in my opinion, diagnostic of the earlier stages of dyspepsia : so long as the pain upon pressure exists merely in the form of paroxysm, we need not fear any actual disorganization of the coats of the stomach. I have remarked that, when the dyspeptic irritation attacks the bowels, which is frequently the case, the irritation in the stomach subsides ; but if the purging be incautiously arrested, by the use of opiates, &c., the original affection of the gastric organ reappears. The same may be remarked of the strangury which occasionally appears as a dyspeptic symptom : it intermits with the stomachic irritation, and the immediate development of the one is the signal for the extinction of the other.

This fact peculiarly illustrates the axioms of physiology ; for, whenever the heart, the liver, the brain, or the bowels, are sympathetically affected in this complaint, the disorder is confined to *one* viscus only ; and we find that two distinct organs are never sympathetically affected at the same moment, unless the irritation has proceeded to an extraordinary degree of intensity ; and whenever several viscera are symptomatically assailed by permanent irritation at the same time, we may rest assured that organic disease exists in the viscus primarily irritated, and also not unfrequently in the organs participating in a preternatural action, which has become permanently sympathetical.

That these irritations terminate ultimately by inflammation, is a maxim which daily experience compels us to admit ; for, physiologically speaking, it is scarcely possible that the minute ramifications of nerves should be preternaturally excited for an indefinite time, without losing a portion of their peculiar powers or energies ; and if they thus, by preternaturally excited action, lose a portion of their natural powers, the arterial ramifications, over whose specific action they continually preside, must necessarily be affected by the loss of nervous power. Thus, I apprehend, it will be generally admitted that the minute branches of nerves expanded

over the serous tissues, and other delicate membranes, preside, in an especial manner, over the arterial and exhalant ramifications of those peculiar textures ; and that the contractility and expansibility of the capillary organs are in equal ratio to the momentum of nervous impression. Let us then suppose, that, by preternatural excitement, the stimulating powers of these delicate nerves are at a discount : the necessary result will be, that the contractility of the arterial trains will become less intense ; and the inferential corollary, that the balance between the exhalant and absorbent systems will be ultimately destroyed. When we consider that the electricity of the nerves is the principal cause of the diversity of the chemical phenomena of the secretions, we may expect that the materials exhaled from the arteries will be vitiated in their natural composition, and originate that permanent proximate reaction which ends only in the disorganization of the textures acted upon.

It is not my intention, in this rapid sketch of the consecutive symptoms of dyspeptic irritations and sympathies, to enter into the why and wherefore of the prerogative of nerves in the composition and decomposition of textures ; but I would briefly remark, that, since all the materials of the body are deducible from the blood, the great modification of the constitutions of those textures compels us to admit that some formative agent must necessarily operate upon the unity of the primary materials ; and we may infer that a galvanic modification of nervous power is sufficient to account for the phenomena of disorganization. I would not, however, be understood to maintain that this galvanic principle is the sole agent in the crystallization of the osseous, fibrous, or cartilaginous laminæ or fasciculi ; but that I am firmly convinced that new complications of primary elements ensue at the extremity of the capillary exhalants, and these modifications of the secreted fluids, and the new arrangements of the primary elements, are caused, in a great degree, by the immediate operation of nervo-galvanic power upon the acuminate extremities of the exhalants. In this manner we may account for the ossification of the valves of the heart, which frequently occurs when the dyspeptic sympathies have for some time exercised themselves over that important organ. That spasms of the heart frequently arise from derangement of digestion, is a statement which will never be questioned by those who have had opportunities of remarking the progress of dyspeptic sympathies : the spasm invariably takes place towards evening, and the patient is frequently aroused out of his slumbers by an alarming apprehensibility of suffocation caused by the tumultuous action of the heart. A slow and obscure action of the exhalants is, however, a symptom of a more dangerous nature, and, by the derangement of the nervous power, these vessels secrete the bony spiculæ which cover the valves of the heart. I well remember a case wherein I severely wounded my fingers, by incautiously introducing them through the auriculo-ventricular opening during a post-mortem inspection ; the valves being consolidated by bony laminæ and osseous projections, of a needle-like appearance. I may briefly advert to phthisis arising from the gastric irritation, as an example of the effect of this great morbid cause in originating consumption of a most fatal character. This disease may or may not be accompanied with expectoration, according to the intensity of the primary and conse-

cutive irritation ; but, whether the discharge be profuse or otherwise, the disease is always attended with marasmus and hectic fever. In some stages of dyspeptic phthisis, I have remarked that the tongue is coated with a semi-pellucid pellicle, of a greyish substance, resembling coagulable lymph. The majority of cases of consumption of the lungs originating from dyspeptic irritation, terminate either by diarrhoea or typhoid fever.

It will be readily acknowledged, from the preceding observations, how exceedingly necessary it is to treat in a prompt and scientific manner the biliary disorders which originate these fatal maladies ; and this observation is the more necessary, since, although the primary irritation may be allayed by the use of medicine, yet, upon the slightest imprudence in diet, the disorder will be instantly aroused. The volumes that have been written upon diseases of the liver, the spleen, the kidneys, and circumjacent viscera, attest, in a peculiar degree, the necessity of attention to the action of that fountain of all nutrition, the stomach ; for we cannot expect the streams to be pure when the sources which supply them are contaminated.

I should exceed the bounds of a few observations were I to enumerate the multitude of symptoms, morbid sensations, and nervous shocks, that alarm the susceptible minds of dyspeptic invalids : sufficient has, however, been said to keep alive the attention of the medical world to one of the most powerful exciting causes of dormant constitutional affections, to the primary cause of the development of a number of local diseases, and to a subject whose peculiar interest consists in the incontrovertible fact, that, although many excellent observations have been recorded, and investigations instituted upon its specific peculiarities, much additional information has yet to be produced.—*Lon. Med. and Phys. Journal.*

EFFECTS OF SWALLOWING PINS.

PETER KEARNS, a gardener, aged 56, of robust frame, was admitted into Sir P. Dun's hospital, under the care of Dr. Osborne, on the 16th of August. It was ascertained, from the testimony of his wife, that he had a singular predilection for keeping pins in his mouth, which he was in the habit of putting there almost every night on lying down to sleep. This circumstance was, however, not communicated until after they had appeared in an ulcer produced in his groin, and he persisted a long time in the belief that it was *impossible* he could have swallowed them.

On his admission he had pain in the right iliac region, increased by pressure or by straining at stool : there were fulness and tension of the part, together with swelling of the inguinal glands. It had lasted two months, having commenced from the cavity of the ilium, and gradually increased till within a few days, when the pain and tension forced him to seek the aid of a hospital. Repeated applications of leeches were used, with water dressings, and subsequently, poultices, and he got draughts of turpentine and castor oil, with hip-baths at nights.

23d.—The tumefaction and inflammation are increasing. The occurrence of flatulence moving in this direction causes a peculiar pain. Bowels

confined during the last thirty hours. A dark spot has formed at the centre of the tumor, a wheyish-colored fluid oozes from around it, and there is a boggy feel, with crepitation, on pressing towards the centre, with induration at the circumference extending towards the pubis and a few inches down the thigh. He was delirious in the night, but there has been neither hiccup nor vomiting. Pulse 90 ; thready. A continuance of the poultices was directed, with a turpentine enema ; and a table-spoonful of port-wine, in an effervescing draught, every hour.

24th.—The tumor has now been opened, and a large quantity of foetid sanious pus has been discharged ; had a motion this morning, which contained a small quantity of sanious pus ; fermenting poultice to be applied ; to continue the wine, and take a quinine pill four times in the day.

30th.—During the last four days there has been a copious discharge of foetid yellowish pus, mixed with sanies, from the wound, and also some coagulated blood, but no repetition of purulent discharge by stool. In order to meet the tendency to sinking, which became very apparent, he got an increased allowance of wine, with porter ; and, as his appetite was not much impaired, he was able to use meat diet. The sulphate of quinine was taken in doses of three grains, thrice in the day.

On the 4th of September, the inflammation having now subsided, and the ulcer having assumed a much healthier aspect, a large-sized pin, crooked to a right angle, and oxidized of a purplish black color, made its appearance at the bottom of the ulcer. A few days afterwards this was followed by another, and in some time by a third, previous to his departure from the hospital. After his return to the family with which he lived, the opening continued unclosed and without secretion for two or three months, during which time he acquired the name of the "*Pin-cushion*," from the exit of pins which take place at various intervals, most of them crooked, and all covered with a purplish black oxide above mentioned. On one occasion he was much alarmed by having "broken wind," as he expressed it, through the opening ; but, with this exception, no remarkable occurrence took place after his dismissal from the hospital.

The passage of pins and needles from the intestines, through various and sometimes distant parts of the body, has often been observed. In the present instance, however, there were some peculiar circumstances worthy of notice. There can be but little doubt that the place where the pins were collected, was the cœcum, and the passage of purulent matter by stool, in connexion with the highly inflamed state of the parts about the cœcum, which at the same time began to secrete pus, denotes a communication taking place between the cavity of the intestine and the surrounding integuments. In connexion with this may be mentioned, that in a patient of Dr. Osborne's, who died of fever, there was found, in the vermicular appendix of the cœcum, a pin covered with large incrustations, which consequently must have remained there some considerable time, and yet did not appear to have excited any disturbance. The crooked figure of the pins in this case necessarily produced much of the pain and irritation, inasmuch as, whatever position they could be placed in while proceeding towards the exterior, they must have acted like

barbed arrows. Once, however, an opening was effected by the passage of the first, the subsequent pins followed in the same track with the greatest facility, and in fact unperceived by the patient, who was as much surprised as his medical attendants could be, when, on taking off the dressings, the head or the point of a pin was described, peeping up among the granulations. With respect to the crepitus perceived in the surrounding integuments, the same is described in the majority of the very interesting cases of inflammation of the right iliac region, related by Mr. Ferral, in the *Edinburgh Medical Journal*, and is usually ascribed to the commencement of gangrene. In this instance, however, the air effused under the integuments was not to be ascribed to that cause, for the gangrene was principally superficial, and confined to one spot, while the crepitus was diffused through a considerable space, and in the body of the cellular tissue; and again, long after the inflammation had been subdued, he passed air through the opening, as has been mentioned. In such cases as have been described by Mr. Ferral, it will be necessary to examine carefully as to the origin of the emphysema, and not hastily to ascribe it to gangrene. The adhesions of the cœcum with the cellular membrane outside the peritoneum are so intimate, and this portion of the intestine is so liable to ulceration, and consequently to perforation, that the passage of air from the latter into the former may very readily occur, and thus produce an appearance which, if mistaken for gangrene, will give rise to a very inappropriate course of treatment. It is evident that, in our case, the pins must have passed through the cœcum in the part now alluded to, and not through the peritoneum; as, in the latter case, the symptoms of peritoneal inflammation would infallibly have been present.—*Medical Gazette*.

For the Boston Medical and Surgical Journal.

ON THE USE OF OPIUM.

MR. EDITOR,—I am glad to see you calling the attention of your readers to the nature, use, and abuse of *opium*, since we shall unquestionably have occasion for its boldest employment, in case our country should be visited with epidemic cholera.

The largest dose of opium that I ever knew administered at once by a physician, was thirty grains. This was to a patient who had been subject to occasional paroxysms of *spasmodic icterus*, of the most painful kind. The dose soon relieved the paroxysms for which it was given, and was followed by no inconvenience. I do not, however, think such heavy practice justifiable. It would have been much safer to have given the opium in the quantity of four or five grains at once, if it had been necessary to repeat it every twenty or thirty minutes, for an hour or two. In the same disease, I once gave a female patient ten grains, within an hour and three quarters. Calling the next day, I found her comfortable, exercising herself by walking from one room to another.—A man called on me who, as he said, had just taken a half a wineglassful of laudanum, which he had mistaken for bitters. I gave it as my opinion, that if he continued to exercise, and did not suffer himself to fall asleep for a few

hours, he would be in no danger ; but as the safest measure, I advised, and rather insisted on giving him, an emetic. He, however, said he hated to miss his dinner, as it was about ready, and rather better than common ; and besides, that it was indispensable for him to attend business in the afternoon. He consequently returned home, ate a hearty dinner of turkey, drank three or four glasses of Madeira, and then went to his customary employment, which was that of an auctioneer. No inconvenience followed.—A Professor stated to his class, that opium might be taken, with impunity, to an enormous extent, beginning moderately and increasing every hour till several grains were swallowed at a time, and then again diminishing it in the same ratio. Shortly after, three or four of his pupils, though attending the lectures and to their studies as usual, were under the operation of seventy or eighty grains a day. No disagreeable consequences followed the experiments of these young men, or inconvenience sufficient to interrupt them, or prevent them from attending to all their customary duties.—If the first dose is not large enough to extinguish life, and this is followed by another before the secondary or narcotic effects of opium begin to appear, it seems to be pretty evident that the use of this article may be carried to a very great extent, without any immediate danger. The greatest inconveniences, that I know of, are a troublesome itching of the nose, sometimes extending over the whole body, and torpor of the bladder, occasionally so great as to demand the catheter. There is, besides, frequently a considerable hoarseness. It has a peculiar effect upon the mucous membrane, lessening its secretions over all the surface where it is situated. I have never seen intoxication, or anything like it, either of body or mind, supervene, from taking this drug the most freely, when the precautions are rigidly observed of giving a new dose before the secondary effects of the former are manifested. Possibly I ought to except a few persons of an hysterical temperament, who sometimes act very strangely after taking a single grain. But some of these patients are exceptions to all rules, whether they take medicines or not. I believe that the opium sickness that is sometimes very troublesome, when the patient is in an erect position, rarely or never occurs when proper pains are taken to prevent the secondary effects, and the article is gradually and regularly abstracted.

I once knew a woman of upwards of eighty years of age, who was very active and industrious, and brought up a large family of children. She had been in the daily habit, for more than forty years, of taking a single dose of laudanum, to palliate an asthmatic cough. She had gradually increased the quantity of the dose, so that it at last amounted to a tablespoonful. She finally died of an acute *catarrhus senilis*. By palliating her cough with laudanum, she had enjoyed more comfortable health, and was more active, than most old people ; and there was nothing peculiar in her last sickness, except a less susceptibility to the action of the usual remedies, than is common. Neither she, nor the other persons of my acquaintance who have daily used opium, were troubled with costiveness.

Perhaps the daily taking of opium is the most powerful *antaphrodisiac* known. Its habitual use for a time produces all but impotency. R.

THE TESTS OF MAGNESIA.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—Upon looking over a February number of your Journal, I have been much surprised at some remarks therein contained, respecting Carbonate of Magnesia; and as their tendency is to render doubtful the value of the simplest test we have for judging of the purity of this article, I have been induced to send you the following brief remarks as a reply.

The writer has said, that heavy carbonate of magnesia is more missible in water than light carbonate, or even than carbonate of lime. To this I reply, that light carbonate may, by compression, be made heavy carbonate, and of course as missible in water, provided the heavy carbonate recommended, be unadulterated with carbonate of lime; and that no carbonate of magnesia is as missible in water as carbonate of lime.

Again—heavy carbonate of magnesia is said to be more pure than light, because the latter is combined with chlorides and sulphates of magnesia, lime and soda. We should be more inclined to suppose, that the *heavy* carbonate was thus contaminated; surely none of the salts enumerated, would conduce to its lightness!

The writer further remarks, that, “A few, and but a few generations back, carbonate of magnesia was many times its present price, so as to be worth adulterating with carbonate of lime”—the natural inference from which, is, that now the test by weight is unnecessary, the price of carbonate of magnesia being only 35 cents per lb., while carbonate of lime is worth 1 cent per lb., the difference is not sufficient to offer any inducement to adulterate.

In the latter part of the article alluded to, it is said, that in cases where sulphuric acid has been taken into the stomach, carbonate of magnesia is preferable, as a remedy, to carbonate of lime, for the reason that an insoluble crust is soon formed around the latter, preventing further action.—That magnesia is to be preferred to lime cannot but be admitted; but, that a crust should envelope a fluid mixture in the stomach, under any circumstances, more especially while in contact with an acid, for which it possesses a strong affinity, no one can believe; nor should I have alluded to this portion of the writer's remarks, were it not for the sentence preceding it.

The simplest tests of magnesia and its carbonate, are, lightness and tastelessness, and it is to be regretted that we have not as simple means of judging of the purity of many other medicinal articles; much more that any measures should be adopted, unnecessarily, not to say falsely, to render doubtful the few means which dealers in medicines now have, of estimating their purity.

J. H. B.

April 10, 1832.

The foregoing communication from a practical chemist and apothecary, is in reply to an article on “The Varieties of Magnesia,” which may be found on the 9th page of the present volume of this Journal. For our-

selves, we have never found any preparation of magnesia but *Henry's*, which would leave no sediment, when mixed with water, and produce no wry faces when taken by children. Ed.

BOSTON MEDICAL AND SURGICAL JOURNAL.

B O S T O N , A P R I L 18, 1832.

SICKNESS AT NIAGARA.

BEING firm believers in the doctrine of Sydenham, we cannot but have remarked the extraordinary constitution of the atmosphere, in most portions of the globe, for the last few years. Diseases, remarkable either for presenting new symptoms, or for an unusual degree of severity in those generally attending them, or for a measure or rapidity of fatality almost unprecedented, have visited the human family in almost every clime.

The king of all these is the cholera, about which the profession is already pretty well informed. The common cholera, too, has in England and other places assumed a degree of severity, which perplexes the wisest heads in distinguishing it from the Asiatic. The dengue is another of the new forms of disease which may be ranked among the productions of the last few years ; and still another is that which has prevailed in Paris, some account of which has been inserted in our pages. Among ourselves, the influenza of the past winter, though nothing novel in character, has prevailed to an extent seldom surpassed, and with a degree of malignity altogether unusual. The scarlatina, for the past year, has been far more fatal than in ordinary times, and most of the cases which have terminated favorably, have been attended with an excessive prostration ; many, with repeated and alarming syncope, and with a slow and often imperfect recovery. The common cholera of our summers has been frequent during the months of January, February, and March, and there are now, at a season when the disease has, in years past, been almost unknown, many cases within the borders of our own metropolis.

From the West, and the South, and the North, we have had accounts from time to time of mortal maladies, and we now learn from Upper Canada that a disease has prevailed there, exciting great alarm, causing many families to remove to Buffalo, taverners to close their houses, and other interruptions to the common routine of business. The symptoms or precise character of this disease we cannot exactly ascertain, as the only accounts of it before the public, are in the newspapers. A letter to one of these periodicals at New York, states that " the disease comes on with a cold chill, *invariably*, which continues in some patients an hour, in others several hours, and in some with great prostration of strength.

After this, a reaction takes place, with great heat of the body and strong determination of blood to the head ; intense headache ; in some cases slight vomiting of bilious matter, and in the generality of cases constipation. Delirium in many cases ensues ; others remain in a comatose state, and death terminates the sufferings in 48 hours. Some, however, linger seven or eight days—in some cases occasional spasms are met with, and in others are entirely absent.”

There is certainly prevalent a state of the atmosphere that produces peculiar effects on the animal frame. Should the ensuing summer be as extraordinary as the past winter has been, these effects, we fear, will be too clearly developed.

SAVAGE MODE OF PRESERVING HEADS.

IN the last number of the *Journal of the Royal Institution*, is an interesting account of the mode of preserving the human head which is practised by the natives of New Zealand. The attention of the individual who furnishes the account, George Bennet, Esq., was attracted by the appearance of a number of heads fixed in stakes, the faces of which had perfectly preserved their form, the cutis remaining perfect, and the hair strongly rooted. These he found to be mostly heads of chieftains slain in battle, which were preserved as honorable mementos of their valor. The process of preparing them is as follows. A hole being made in the bottom of the skull with a club, the brains are carefully drawn out and the interior washed. The head is then immersed in hot water, and the cuticle removed with great care, so that the hair which is loosened by this process may not be drawn out. A pit is then prepared so as to form a sort of oven, covered over except a central opening, over which the skull is placed. Water being poured into this pit, hot stones are rolled in at intervals, the steam from which arising passes freely into the skull. In the meantime, the septum marium and nostrils are plugged with bits of wood, and the latter stuffed with flax or pieces of soft wood, so as to give to the nose its natural shape ; and one person is employed in smoothing with his hand any inequalities which show themselves in the surface of the skin. When thoroughly steamed, the head is dried and then smeared over with oil ; although this last process is considered rather as contributing to beauty of appearance, than tending to its preservation. Heads prepared in this manner have been purchased and carried over to England, where they are esteemed a great curiosity.

TREATMENT OF ULCERS.

DR. BRADFORD has a communication in the last *London Medical Gazette*, on the modes of treating ulcers. He thinks the methods hitherto adopted have been based on wrong views, and therefore proposes one on princi-

ples directly opposite. After enlarging considerably on these topics, we are favored with an exposé of the novel application, which is a succession of adhesive straps over the ulcer, so applied as to draw its edges towards each other, and over this a bandage from the foot upward ! Truly, this is a novelty which will excite the deepest interest in every surgical practitioner.

QUARANTINE REGULATIONS—VACCINATION AMONG THE INDIANS.

It will be recollected that after the subject of the quarantine restrictions had been discussed by the Committee on Finance, in the House of Representatives in the Congress of the United States, it was, at the suggestion of that committee, referred to the Committee on Commerce. This committee, after diligent attention to the subject, and a correspondence with the civil authorities of the several sea ports on the coast, has reported a bill the more effectually to enforce such restrictions throughout the Union. The bill was passed through all its stages without opposition. The principal provisions are the following :

1. Every vessel arriving at any port in the United States shall be subject to the quarantine regulations of the port.

2. It shall be the duty of all officers of Revenue Cutters to assist in carrying into effect the quarantine regulations of the several ports, under the directions of the Secretary of the Treasury.

3. It is the duty of all licensed pilots to place in the hands of the commanders of all vessels they may board, copies of the quarantine regulations of the port, and of this act.

4. Any persons violating the provisions of this act, shall be liable to a fine not exceeding \$1000—one half to the United States, the other half to the informer.

A bill has also passed Congress for extending the benefits of vaccination among the Indian tribes.

Mollescence of the Brain.—Much discussion has taken place respecting the nature and cause of softening of the brain. The earlier pathologists, when they met with this condition of the organ, did not attempt to account for it—and under the name of apoplexy were ranged the various alterations of the cerebral mass. Valsalva and Morgagni regarded mollescence of the brain as a kind of decomposition or putrefaction, the effect of which was suddenly fatal. When their scalpel detected this state of the organ, they looked upon it, not as the cause of the disease under which the patient had labored, but as the final termination of the malady. Bayle, Cayol, Recamier, and other modern pathologists, have drawn attention to the subject under consideration—carefully describing the appearances, and cautiously endeavoring to account for them. Recamier designates the morbid cause by the old name “*ATAXIC FEVER*”—and the effect he terms “*foyer ataxique*.” Rostan is more cautious. He minutely details the symptoms and post-mortem appearances, styling the affection an “*organic alteration*,” which, of course, prejudges nothing as to the nature or cause. Lallemand indeed is more bold. He ascribes the ramollisse-

ment at once to an inflammatory process—and in the majority of cases, there can be little doubt that this condition of the brain is the effect, the termination of encephalitis. On the other hand, when in and around the softened portion of brain, we can discover no sanguineous injection, no purulent infiltration, no morbid secretion whatever—nothing but a mere diminution of consistence in the nervous pulp—how can we call this inflammation? Andral doubts the correctness of the exclusively inflammatory doctrine—and in a report from the HÔTEL DIEU, published in a recent number of the *Journal Complementary*, there are some cases related to show that Lallemand's hypothesis is not quite correct. Some of these we shall here notice.

Case 1. A female, aged 68 years, entered the HÔTEL DIEU, on the 14th June, 1830, for a slight bronchial affection, for which she was treated in the usual manner, and soon recovered. On the 1st of July, this woman, while walking about the wards, suddenly fell down deprived of sense and motion. The pupils were contracted, the face pale, the respiration quick, the pulse hard and frequent. The case was pronounced, of course, to be apoplexy—and venesection, sinapisms, &c. were ordered. She lingered in a wretched state for 25 days, when mortification of the integuments of the back put an end to her existence.

On dissection, there was no turgescence of the vessels of the encephalic membranes. These membranes were rather pale than otherwise. The anterior portions of each hemisphere appeared natural; but on approaching the middle lobes, they were found without consistence, and a certain portion reduced to a kind of bouillie, where all trace of cerebral texture was lost. There was no mark of inflammation, or even injection in any part of the brain.

Case 2. This occurred in the hospital for old women. A female, aged 78 years, of apparently good constitution, had been in the Salpêtrière since the 13th July, 1830. She was carried to the above institution on the 25th April, 1831. She had complained, for a fortnight, of her head in the right side, while there was numbness or sense of formication in the extremities of the opposite side. There was some impediment in her speech. She ate and slept well. The left arm gradually lost its motile power, and the lower extremity was benumbed. The other side possessed motility and sensibility.—There was little disturbance in the other functions. For a fortnight, or so, the paralysis gained ground, and then she remained hemiplegiac for a month or more. Pains then came on in the affected parts—agitation and delirium at night succeeded—the evacuations became involuntary—and death closed the scene.

On dissection, the meninges of the brain appeared gorged with fluid blood, which also flowed freely from the sinuses of the dura mater. There was nothing unusual in the external character of the cerebral mass; but, on penetrating some way into the right hemisphere, a focus of mollescence (*foyer d'un ramollissement*) was discovered, six inches in length and two in breadth. There was no other organic alteration of any consequence in the brain.—*Medico-Chirurgical Review.*

Hereditary Syphilis.—Professor HAASE has recorded some interesting cases in which syphilis appeared in very young infants, although their parents had been for many years perfectly free from any venereal affection, and to all appearance in perfect health. Many similar facts have been

related by other writers. M. Haase infers that a syphilitic diathesis may be transmitted from parents to their offspring, in the same manner as the disposition to scrofula, &c., and that no *material* transmission is essentially necessary. M. H. is also of opinion that new-born children may inherit syphilis from the father, although the mother has never been infected.—*Bull. des Sc. Med.*

The Laws of Cholera are comprehended by Dr. Kennedy under the following designations.

"1st. *Climatic influence.* The contagion of cholera may spread in every climate, with its spreading powers but slightly, or not at all, impaired.

"2d. *Predisposition.* Persons in certain states of bodily health are peculiarly liable to be attacked.

"3d. *Latent infection.* The period of time during which the contagion lies dormant in the system rarely exceeds three days.

"4th. *Increase and decline.* When the cholera appears in a town, it extends rapidly, and, in general, runs through its course in the space of a few weeks.

"5th. *Contagion.* Cholera is contagious, and its contagion is of a highly diffusible nature."

Hufeland's Emetic for Infants.

R. Pulv. Ipecac. ℥j.
Oxym. Scillæ, 3 ss.
Syrupi. Framb. 3 ss.
Aquæ comm. 3 ss. M.

A spoonful is to be given in coffee, at short intervals, until vomiting is induced, and it may be repeated if the action is to be kept up. For children more than a year old, a quarter of a grain of tartar emetic may be added to the above mixture, unless diarrhœa be present.—*Gazette des Hôpitaux.*

Delirium Tremens.—Of 43 patients laboring under this complaint, M. Pauli has lost but 1, and in 12 cases has been enabled to stifle it in its beginning. His grand remedy is fresh *ox gall*, in a dose of from 3 to 6 drachms (gros) in from 4 to 6 ounces of peppermint water, infusion of valerian or calamus aromaticus. Same time, the patient takes half a glass of brandy in the morning, and at night one or two grains of watery extract of opium.—*Rust's Magazine.*

Adhesive Plaster.—The following composition I have found to adhere to the skin with great tenacity, and without irritating it: it may also be melted by a very low degree of heat:—

R. Picis Nigræ, 2 oz.
Ceræ Flavæ, 1 oz.
Resinæ Flavæ, 2 oz.
Terebinthinæ, 1-2 oz. Ft. Emplast.

Electric Embryos.—For their important researches regarding the formation of embryos by the action of electric currents, Professor Delpech and

Dr. Coste have been recently presented with the large gold medal by the Société des Sciences Physicales.—*Medical Gazette*.

Lateness of the Season.—The Gardiner (Me.) paper of the 10th inst. states that the ice in the Kennebec is $1\frac{1}{2}$ foot thick. Last year the river opened on the 24th of March.

University Degrees.—At the Medical Commencement at the University of Pennsylvania on the 29th, the Degree of Doctor of Medicine was conferred on 133 young gentlemen.—45 were from Virginia, 35 from Pennsylvania, and the remainder from 12 other States.

Seventy-four young gentlemen received the degree of M.D. at the annual commencement of the Medical Department of Kentucky University, on the 20th ult.

At New York, on the 3d instant, the College of Physicians conferred twenty degrees of Doctor of Medicine.

New York Eye Infirmary.—Twelve hundred persons, it is said, were prescribed for at the New York Eye Infirmary in 1831, and 10,000 since its establishment in 1820. The collections in aid of this charity in one day were two hundred and fifty-five dollars.

The corner stone of a *Hospital for the Blind and Lamé* was recently laid in Philadelphia.

Notice.—The communication we publish to-day on the subject of Opium, is from the pen of a long-distinguished medical practitioner, who assures us, to use his own words, that "all the facts mentioned have come under my immediate notice, or have been related to me by the actors in them, so that they are not rumors at second or third hand."

Whole number of deaths in Boston for the week ending April 13, 37. Males, 23—Females, 14. Stillborn, 2.

Of consumption, 2—lung fever, 4—liver complaint, 1—inflammation in the head, 1—scarlet fever, 8—old age, 5—brain fever, 3—measles, 2—convulsions, 1—unknown, 1—croup, 1—suicide, 1—teething, 1—infantile, 1—quinsy, 1—dropsy on the brain, 1.

ADVERTISEMENTS.

THE CEREBRO-SPINAL AXIS OF MAN, with the origin and first divisions of its Nerves. From the French of M. MANEC, D.M.P., Lecturer on Anatomy and Operative Surgery, &c. at Paris. Translated and revised by L. PANCOAST, M.D. Just received by CARTER & HENDEE. March 7.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

WEDNESDAY, APRIL 25, 1832.

[NO. 11.]

UTERINE IRRITATION.

The Morbid Conditions of the General System and of Particular Organs which result from the Continuance of Uterine Irritation.

THESE of course vary very much both in kind and degree, but chiefly in degree, according to differences in particular constitutions, and according to susceptibility of individual organs.

The first complaint usually made by a female suffering from this irritation, is, of feeling *nervous*, probably with a disposition to be low-spirited; but if, in a well-marked case of the kind, you proceed to feel the pulse, and especially if it be your first visit, the chance is that you will perceive a distinct tremor of the hand, and a remarkable acceleration and sharpness of the pulse, evidently arising from mental agitation—a degree of mental agitation so great, in a naturally susceptible female, that if you attempt to soothe or encourage her, she will begin to sob, her lips quiver, and she bursts into a flood of tears. Even after she has sufficiently recovered her self-command, she experiences considerable difficulty in describing her feelings and sensations, and often appears to despair of satisfactorily communicating to you the nature of her ailment. She tells you, that, without any assignable cause, she gradually declined in health and spirits; that she has lost her wonted alacrity, has become indolent, and is easily fatigued by comparatively slight exertion; that she is readily flurried; that her heart often beats, flutters, or palpitates; that the impressions made upon her mind are altogether disproportionate to the causes producing them; that she is very prone to weep, and occasionally experiences sudden and transitory feelings of alarm and dread, especially during the night, without being able satisfactorily to account for them; in short, that both body and mind are in a morbidly sensitive condition, whilst general distress is strikingly depicted in her pale or dejected countenance. If you proceed in your inquiries to ascertain the state of the uterus, you are perhaps informed that she is regular; but if interrogated more narrowly, it will almost uniformly be found that she suffers pain, either before or during the flow, in the back or loins, and that in the intervals she is troubled with leucorrhœal discharge. To these inquiries she gives a reluctant reply; will often, perhaps from delicacy, conceal truth, or, if she acknowledge it, will probably add, “Oh, that is of no consequence; that is not my complaint; I have long been accustomed

to that, and it does me no harm ;” and then winds up the case with telling you that she has taken a load of tonic medicines without benefit. If you ask her whether such questions were ever put to her before, you are generally answered in the negative. Such a case as this, with slight modifications, is of common occurrence, yet it most frequently happens, that, with the general disorder, we have decided derangement of some internal organ or organs ; and of these, the organs of digestion appear to be almost uniformly the first to participate ; indeed the derangement of the digestive organs, to a greater or less extent, is so commonly associated with the general affection I have described, that one cannot but conclude that the general affection is most materially influenced, if not in part produced by it. It is sufficient, however, for our purpose to know that the exalted susceptibility of the general system and this deranged condition of the first passages, are very commonly co-existent, however they may stand in the relation of cause and effect.

The first appreciable disturbance of the stomach is most frequently a tendency to *flatulency*, which flatulency is productive of different effects in different individuals, although, in all, the stomach itself appears to be in a morbidly irritable condition, so as greatly to modify or aggravate the consequences that would otherwise arise from the presence of such flatulency. The patient experiences uneasiness at the *scrobiculus cordis* ; she complains of a sense of load or distension after meals, or, if the stomach be uncharged with food, of prickings and anomalous pains in the organ, all of which symptoms are pretty uniformly relieved for a time by the expulsion of flatus from the stomach. In other cases, the irritation produced by the flatus about the cardiac orifice, excites a sympathetic affection in the throat, a sort of *globus hystericus*, which is variously described by patients, some calling it spasm, whilst others compare it to a mechanical obstruction, and indeed one lady somewhat fancifully compared it to a *bullock* in her throat. It is a sensation, however, which will often last, in a greater or less degree, for days, or even weeks, with little intermission.

At other times the patient suffers from repeated vomiting, or is perhaps seized suddenly, but only occasionally, with vomiting, preceded, accompanied, or followed by an irregularly inverted action, chiefly of the *œsophagus*, and attended with an ascent of flatus, so as, in some instances, to threaten suffocation.

Such are the ordinary affections of the stomach met with in the disorder to which I have alluded ; affections, however, varying both in kind and degree in different individuals ; affections, too, in which the whole alimentary canal appears more or less to participate, the patient being very commonly troubled with rumblings, distension and anomalous transitory twitchings in the bowels, symptoms undoubtedly depending upon the flatus and other contents irritating these already morbidly sensitive organs. In more rare cases there appears to be a sort of inverted action of a greater or less portion of the alimentary canal ; an inverted action commencing in some part of the bowels ; an inverted action accompanied by a rumbling noise in these organs ; an inverted action extending to the stomach, passing up the *œsophagus* to the pharynx, where it produces a most distressing sense of suffocation, and lastly communicating with and

involving in one universal disturbance the brain and entire nervous system. This mysterious communication, so closely allied to the aura epileptica, is in all probability somewhat of the same nature, and may, perhaps, result from the same irritation in the alimentary canal being conveyed through the pneumo-gastric nerve to the brain ; for when this takes place, the breathing is usually affected at the same time in a remarkable manner ;—the whole assemblage of symptoms, the aberration of mind and bodily contortions constituting, when taken collectively, what in common language is understood by a hysteric paroxysm. There are, however, divers modifications met with—the patient being sometimes seized with violent and involuntary fits of laughter or crying during the paroxysm, at other times she will lie in a perfectly motionless and insensible state, but with a natural pulse, for hours together ; or she shall suffer from a more or less perfect paroxysm without its being preceded by any globus whatever.

Hitherto, then, we have traced the effects of uterine irritation as they appear in the form of a general morbid sensibility and mobility of body and mind, with flatulency and irritability of the stomach and bowels ; which symptoms alone, but in different degrees, may continue to harass such patients for months, or even years, without either a well-developed hysterical paroxysm, or any other inconvenience deserving particular notice. But it remains to be observed, that this exalted state of the nervous system is not, in a considerable proportion of cases, evinced solely by morbid susceptibility and excessive or irregular action, but, moreover, by *morbid sensation*, affecting different parts or organs of the body, and this too varying from the slightest uneasiness to the most exquisite torture.

Now, it is to these painful affections that I am anxious to direct your earnest and special attention ; because, in the first place, it is to relieve these that you will most frequently be called upon to render your assistance, and because, in the next place, these painful affections are perpetually misunderstood and mistaken, to the serious detriment of the patient. I repeat, then, I am anxious, most anxious, to impress upon your minds the nature of these secondary painful affections, their most frequent seat, and the various sources of fallacy by which you may be betrayed into error.

Of these painful affections, the most serious, or at least the most prominent, and certainly by far the most interesting, are those which attack the abdominal viscera, as these are repeatedly mistaken for inflammation, and treated accordingly. I shall not stop to inquire why those viscera, supplied by the ganglionic system in general, or why the abdominal viscera in particular, should be more liable to suffer such painful affections than other parts of the body supplied by the ordinary nerves of sensation and voluntary motion ; suffice it to say that such is the fact.

Of the painful affections of the abdominal viscera, the most frequent are,

1st. A pain seated under the left mamma, or under the margin of the ribs of the same side.

2d. A pain under the margin of the ribs of the right side.

3d. Pain in the course of the descending colon.

4th. Pain in the course of the ascending colon, especially towards the right hypochondrium.

5th. Pain affecting the abdomen generally.

6th. Pain in the region of the stomach.

And lastly, Pain in the region of the kidneys, sometimes extending down the course of the ureters to the bladder.

Such are the painful affections usually met with, attacking the abdominal viscera ; affections, too, which, in point of frequency of occurrence, observe the order in which I have enumerated them. You will have noticed that I am reserved in referring these pains to any particular organ, contenting myself with the *fact* that the pain is felt in a particular *situation*. The truth is, considerable difficulty presents itself in ascertaining positively what particular organ is affected, as the natural functions of the part or organ do not, in such cases, appear to be necessarily disordered, or at least to such an extent as to indicate with certainty that it is the seat of the pain complained of by the patient ; neither can we have the usual aid of *post-mortem* examinations, as few die of such complaints, whilst, if the patient be cut off by another disease, no organic lesion is discoverable to satisfy our inquiries. Occasionally, however, this question may be decided during life, as we shall see presently.

With respect to the *pain under the mamma, or under the margin of the ribs of the left side*, this is out of all proportion of most frequent occurrence, and will often last for weeks, or even months together, with but little intermission. This pain is very circumscribed ; it is not necessarily or constantly increased by a deep inspiration or by external pressure, although this is occasionally observed ; it is seldom attended with cough ; it is not materially affected either by a charged or by an empty state of the stomach, but varies in its intensity, and now and then goes off altogether for a few minutes, hours, or even days, or the pain shall subside and be succeeded by a mere uneasiness or sense of fulness in the part. This pain, as I have said, is of extremely frequent occurrence, and is very often associated with palpitation of the heart, or, what is much more usual, with unnatural pulsation of the organ, if I may be allowed the expression ; *i. e.* the patient is conscious of the heart's action, or she feels as if its impulse were communicated to a part so sensitive as to excite distinct sensation, which, you know, is not the case in a state of health. With respect to the precise source of the pain, I confess myself at a loss to speak with confidence or certainty, but am upon the whole inclined to assign it, when complained of under the left mamma, to the cardiac orifice of the stomach ; or at least in one case in which it had prevailed for a considerable period, and in a very aggravated degree, I was led to this conclusion. The young woman, to whose case I allude, died suddenly in a fit, and I examined the colon, spleen, heart, and stomach, with the minutest attention, when the only indication of irritation I could detect was a ring of very delicate vessels, or rather a blush of redness, surrounding the cardiac orifice of the stomach, such as might be supposed to be the result of any continued irritation or spasmodic action. Whatever may be its precise seat, it is repeatedly, but erroneously, supposed to be purely of an inflammatory nature, and consequently is mistaken for and treated as pleuritis or splenitis.

The second painful affection to be noticed is that *seated close to the margin of the ribs on the right side*. This pain, although occasionally circumscribed almost to a point, usually extends from the scrobiculus cordis along the margin of the ribs, nearly to the loin of the side affected ; it is neither considerably nor uniformly increased by a full inspiration, yet this is occasionally observed. External pressure, however, aggravates the pain, and sometimes in a very remarkable degree, whilst in some instances there is such tenderness, that the patient shrinks from the slightest touch. The pain now and then shoots through to the back or between the shoulder-blades, but very rarely to the top of the right shoulder. This pain will occasionally remain, with slight remissions, for weeks or even months ; at other times, it subsides altogether, and is succeeded, like the pain under the left breast, by a sense of fulness or tension of the part. As to the actual seat of this pain, I again confess myself incompetent to decide. I have sometimes supposed it to be in the *colon*, as it may now and then be traced from the margin of the ribs into the right iliac region ; in other instances I have supposed it to be seated in the *duodenum*, from its being occasionally attended with sickness, from its being aggravated during the operation of mercurial purgatives, and from its being in some rare cases attended with a remarkable sallowness or icteritious aspect of the countenance, and indeed with almost complete jaundice.

Here again, then, I must leave you in doubt, merely remarking, that it is not inflammatory, although repeatedly mistaken for hepatitis, and treated as such.

The next painful affection to be noticed is *that seated in the course of the descending colon*. This is not unfrequently associated with the pain under the left mamma, but is also observed to exist alone, extending from below the ribs to the *sigmoid flexure of the colon*. This, like the others described, is variable in its degree, and although more or less permanent, sometimes remits for hours, days, or even weeks together, and again returns. It is, however, more decidedly and obviously affected by flatulence, than the pains in the other situations mentioned ; thereby more clearly pointing out the seat of the malady. The movement of the flatus is occasionally attended with a gurgling or rumbling noise, and a simultaneous aggravation of the local pain in the part. This is now and then mistaken for colitis, or for some organic lesion of the organ.

Fourthly, *Pain in the course of the ascending colon*. I have had occasion to observe, that the pain already described as situated behind the margin of the ribs on the right side, sometimes extends down the course of the colon as far as the iliac region ; it not unfrequently happens, however, that the pain is felt exclusively in the situation of the ascending colon, and like that on the opposite side, varies in degree at different times, or for a period disappears altogether. This pain, too, after a time, is attended with considerable tenderness, so that the least pressure creates inconvenience.

Fifthly, *Pain affecting the abdomen generally*. This is by no means of rare occurrence, and in some instances so closely resembles general peritonitis, as to be mistaken for, and treated as that complaint. Indeed, I know of no disease more puzzling than this, and it was not, I confess,

till I had witnessed several such cases, and attended minutely to the history and progress of the disorder, that I became convinced of its true nature. It may be called a general *neuralgia* of the abdomen. It is sometimes attended with a tympanitic, and at other times with a flaccid state of the bowels, the former being by far the most distressing. The pain is complained of over the whole of the belly, and the slightest touch, in many instances, cannot be borne, such is the extreme sensibility and tenderness of the parts.

If you watch the case attentively, you will, in general, soon detect some incongruity in the symptoms, to excite doubt and suspicion ; but yet, so close is the resemblance in some cases, as almost to set positive diagnosis at defiance. A case of this kind lately occurred to me, where I was in so much doubt, that, to err on the right side, I treated it as peritonitis, although the history of the patient, and the condition of the uterus, told against it : I soon became convinced that I had been wrong, as I shall presently explain to you. It may be observed, too, that this general pain of the belly, like peritonitis, frequently occasions but little distress, unless pressure be applied, and, like peritonitis also, it suffers an aggravation at intervals, an aggravation apparently in both cases depending upon the spasmodic action or griping in the bowels.

The *sixth painful affection* is that attacking the *stomach* in particular. This pain is for the most part strongly marked, and the more intense the disorder, the more positive is the evidence of its being really seated in the organ mentioned. Thus it will sometimes come on suddenly, occasioning the most excruciating agony ; the patient screams from the violence of her sufferings, her countenance is expressive of the greatest distress, and she leans forward or bends the body in order to diminish the pressure of the abdominal parietes ; or, she says that the pain is drawing her double. This, in some cases, will last with little mitigation for several minutes, or even hours, the patient the whole of the time making loud complaints, and declaring that she must die if not speedily relieved. This pain will probably remit, and be succeeded by another much less severe, though more permanent ; both the intense and more moderate pain being much increased by pressure made upon the epigastrium.

Lastly.—Such patients occasionally experience a sudden and severe attack of pain in the region of the kidneys, to which region it may be exclusively confined, till it disappear altogether, or it shall extend from thence down the course of the ureters to the bladder, or the bladder alone shall be affected with pain ; in either of the latter cases the patient generally experiences more or less dysuria.

Having pointed out the ordinary local affections arising from or connected with uterine irritation, I need only add, that you will often in the same individual meet with more than one of them existing at the same time ; or, what is more usual, you will have them alternating with each other ; whilst you will also observe the greatest variety in the relative severity of the general and local disorders mentioned ; the general derangement prevailing occasionally in a very high degree with but little local pain, and *vice versa*.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, APRIL 25, 1832.

THE preceding account of a very common and interesting affection, is from a Lecture on the subject of Uterine Irritation, by Dr. Addison, of Guy's Hospital, London. His excellent remarks on the mode of treating the disease we shall offer next week.

THE ABBE HAÜY.

IT is a remarkable fact in the history of the celebrated Haüy, that his study of mineralogy, to the successful pursuit of which he owes his reputation, was not commenced till the age of 40, at which time he was, and had been for fifteen years, a teacher of the Latin language at the College of Navarre, in Paris. An account of the accident which thus directed his studies into so different a channel, is thus given by his biographer Baron Cuvier.

The king's garden was in the neighborhood of his college. It was natural enough that he should frequently walk there. The numerous objects which met his view attracted his attention, extended his ideas, and exercised him still more in comparing and classifying. One day seeing the crowd of pupils entering the lecture room of M. Daubenton, he followed them, and was delighted to find mineralogy, even more than plants, suited to his natural turn for physical science.

But the pupils in the king's garden and M. Daubenton's auditors were content to leave botany and mineralogy just where they found them. Probably they understood both better than Haüy, because they had commenced the study earlier : but this long habit was precisely what had familiarised them with difficulties, which they came at length wholly to disregard. From learning these sciences later, M. Haüy was led to regard them differently. The breaks in the chain of analogies struck him the more forcibly, as in the plenitude of mental vigor he had thrown himself with his whole energy into a new pursuit. He had remarked the constancy in the forms of flowers, fruits, and all the parts of organised bodies, and could not conceive how minerals, so much more simple, and as it were more geometrical, should not be submitted to the same laws. How, said M. Haüy, does the same stone, the same salt, show itself in cubes, prisms, needles, without the slightest change in their composition, while the rose has always the same petals, the acorn the same curve, the cedar the same height and the same development.

It was while reflecting in this manner, that one day, in examining some minerals at the house of a friend, he by a fortunate accident let fall a

fine group of calcareous spar crystallized in prisms. One of these prisms broke so as to exhibit on the broken surface faces not less smooth than those without, and which presented the appearance of a crystal wholly different in form from the prism. M. Haüy picked up this fragment ; examined its faces, their inclinations, and their angles. To his great surprise, he finds them the same as in the spar with rhomboidal crystals, the Iceland spar.

A new world seemed to open before him. He returned to his cabinet, takes a spar crystallized in hexadral pyramids, tries to break it, and again finds the rhomboidal crystal of the Iceland spar ; the splinters which he lets fall are themselves little rhomboids : he breaks a third specimen, one of lenticular spar ; a rhomboid is again found in the centre, and smaller rhomboids detach themselves from the mass.

“ All is found ! ” he exclaims : the particles of calcareous spar have but a single form ; it is by diversely combining, that they compose those crystals, whose various exterior deceives us. Proceeding from this idea he easily imagines that the laminæ of these particles being placed one above another, and gradually diminishing, must form new pyramids, new polyhedra, and envelope the first crystal as with another, so that the number and figure of the exterior faces might differ much from the primitive, according as the new laminæ had diminished on this or that side, and in this or that proportion.

If this was the true principle of crystallization, it could not fail to reign also in crystals of other substances ; each ought to present uniform constituent particles, a nucleus true to itself, and accessory laminæ producing all the varieties. M. Haüy at once breaks in pieces his whole collection ; his own crystals, and those obtained from his friends, all come under the hammer. He finds everywhere a structure founded on the same laws. In granite the form is a tetraedron ; in fluor spar, an octaedron ; in pyrites, a cube ; in the heavy spar and in gypsum, it is a right prism, with four faces, but with a base having different angles. The crystals always break into laminæ, parallel to the faces of the nucleus. The exterior faces can always be understood as resulting from decreasing laminæ, the decrement being more or less rapid, and taking place sometimes by the angles, sometimes by the edges. The new faces are only little steps, or little series of points, produced by the retreat of these laminæ, and appearing planes to the eyes, on account of their tenuity. No crystal which he examines offers an exception to the law. He exclaims a second time, and with more assurance, “ All is found ! ”

But to make assurance doubly sure, a third condition must be established. The nucleus, and the constituent particle, having each a definite form, strictly determinable in its angles, and in the relation of its lines, each law of decrement ought to produce determinable secondary faces, and even the nucleus and particles once given, it ought to be easy

to calculate, a priori, the angles and the lines of all the secondary faces, which the decrements could produce. In a word, it was requisite here, as in astronomy, in order that the theory should be established, that it should explain precisely the known facts, and should with equal precision foresee those which were not so.

M. Haüy felt this ; but for fifteen years that he had passed the best part of his day in teaching Latin, he had almost forgotten the little geometry which had been taught him at college. He quietly went to work to regain it. He who had so quickly learned botany to please his friend, could find little difficulty in acquiring sufficient geometry to complete his discovery, and after a very few trials he found himself fully rewarded. The hexaedral prism which he had broken by mistake, gave him, by an ingenious observation, and simple calculations, a very near value of the angles of the molecule of spar ; other calculations gave him those of the faces, which are added by each decrement, and by applying the instrument to the crystals, he finds the angles precisely of the measure which the calculation gave. The secondary faces of the other crystals were as easily deduced from their primitive faces ; he even found that for the most part, in order to produce secondary faces, it is sufficient to allow for decrements in very simple proportions, such as are in general the numerical relations established by nature. It was then, that for the third time, and at length without hesitation, he exclaimed, " I have found all ! " and at last gained courage to mention his discoveries to his master Daubenton, whose courses till then he had followed in silence.

Enormous Dilatation of the Biliary Ducts.—M. Berard has met with a case in which the biliary ducts were enlarged from twelve to fifteen times their natural size in the parenchyma of the liver. The patient had neither icterus nor obliteration of the ductus choledochus, but the biliary ducts contained many calculi.—*Rev. Méd.*

Cæsarean Operation successfully performed. (*Archives Générales de Médecine.*) An extract is given in this Journal from a late thesis of a Parisian graduate, M. Jolly, giving an account of the remarkable success which his father, a surgeon at Chateau-Thierry, has experienced in performing the Cæsarean operation. He has operated six times, five of his patients being country women, and the sixth an inhabitant of the town. In all, the labor had lasted at least forty-eight hours before the operation was performed, and the waters had been discharged. In one patient only of the six no fatiguing attempts had been made by midwives or accoucheurs to finish the labor. He always made the incision on the linea alba, between the navel and pubes, and divided the uterus in the same direction, taking care to restore it first to the perpendicular position, if it was inclined. There was never any material hemorrhage ; no patient, indeed, lost more than two ounces of blood. In dressing the wound he always had recourse to the gastroraphy, which, instead of producing the ill consequences usually ascribed to it, appeared to him always to contribute

greatly to the cicatrization of the wound. In two of the six cases no untoward symptom whatever followed the operation, and the cure was perfected before a month expired ; in two others a smart degree of inflammation of the abdomen supervened, but was successfully combated by venesection, baths, and fomentations ; and the remaining two died evidently of metropéritonitis, one on the fourth day, the other at a later period, when there appeared every chance of her recovering under the antiphlogistic treatment. Of the six infants, four were born alive and survived, but two were dead after the operation was concluded, although they were thought to have been alive before it was performed. In no instance did hernia ensue ; but there was always some prominence of the abdomen at the cicatrix, which had diminished from six inches in length to three only.—This is the most favorable statement which has ever appeared on the subject of the Cæsarean operation.—*Edinburgh Med. and Surg. Journal.*

Monthly Notice of New Publications.

A Practical Compendium of Midwifery, &c. By the late ROBERT GOOCH, M.D. Prepared for publication by GEORGE SKINNER, Member of the Royal College of Surgeons, London. Philadelphia, E. L. Carey and A. Hart, Chesnut St. 1832. 8vo. pp. 319.

DR. GOOCH is well known to the public as having enjoyed for many years a very extensive midwifery practice in London, and gained considerable reputation as a teacher in this branch of medicine. The present work is principally a practical compend, without much of novelty to recommend it, but containing a sufficiently full account of the principles of the science, with plain and judicious rules of practice which are calculated to render it a useful work. The faults which it exhibits, indeed, are chargeable on the Editor rather than the Author. They belong to it in common with a class of publications, which are new to the public, within a few years, and the peculiar character of which does not seem to have yet attracted the attention which it merits. The class we allude to is that of works, compiled from the Lectures delivered in the Medical Schools in London, taken down in short hand by students, and published in the very words used by the lecturers themselves. In this way two or three periodicals have been furnished with a large and perhaps the most popular portion of their contents, and some few separate works have been got up, of which the present is no unfavorable specimen. In some minds a scruple might arise as to the fairness of thus appropriating to a personal speculation the fruits of others' labor. The legality of this proceeding has, however, been successfully maintained, and, if we may judge from the occasional observations touching this matter, which we see scattered through the foreign journals, the lecturers themselves have found it best to make a merit of necessity, and when consulted on the subject have

given a free consent to this use being made of their oral addresses. What good effects may have resulted from this in disseminating medical knowledge, we cannot say ; but it appears to us, that the system is not calculated to raise very high the reputation of the individuals whose words are thus quoted, or to elevate the standard of medical literature. Indeed we do not believe that so much vulgar, not to say licentious language, so much stale wit and coarse allusion, or so much wild, loose and rambling speculation under the pretence of Science, could be collected from all the medical publications for fifty years previous to the last ten, as has made its appearance during that time in the form of reported lectures. In saying this, we impute but a very limited share of the blame to the lecturers themselves. In a crowded city, like London, where such a multitude of competitors are engaged in this employment, it is not to be wondered at if men, even of high standing in the profession, should find themselves obliged to resort to popular arts to gain popular applause ; that they should, even at some hazard of their personal dignity, entertain their classes with humorous incidents drawn from the details of private practice ; with scandalous anecdotes of female frailty, obtained in the confidence of domestic intercourse ; with detailed descriptions of matters not very delicate in themselves, and not absolutely indispensable in the way of useful information ; that they should, in fact, sometimes cater for a depraved appetite, or minister to idle and gaping curiosity. In all this the apology of the bad taste of the lecturer may be found in that of his audience ; and much that might otherwise be condemned, finds a ready excuse when viewed as making part of the confidential intercourse between a teacher and his private pupils. But the matter assumes a very different aspect, when expressions of this sort are dragged into that publicity which is given to a weekly journal, or come to make part of a systematic treatise. In the former case, their circulation is by no means limited to professional readers, merely : they appear among the novelties of the day in libraries and reading rooms ; they are thrown in among the families of medical men, and from the popular form in which these publications appear, are taken up and read by every idle passenger. Now we are not disposed to estimate extravagantly the mischief which books containing loose expressions can do to the cursory reader, when so many more powerful means exist of vitiating the taste and corrupting the morals of the community ; but we feel safe in saying that such expressions are not calculated to instruct or to edify. As respects systematic works compiled in this manner, their influence on general readers is much more limited, since the greater part of these are deterred by their technical character from encountering their contents. We cannot but feel, however, that they are not creditable to the science and taste of their reputed authors, and do less than justice to the character of the profession. It is preposterous to answer to this charge, that the nature of medical subjects

requires the use of terms not strictly in accordance with scrupulous delicacy. The apology is at best but a partial one ; for the expressions to which we allude are those introduced wantonly and without being at all necessary to the elucidation of the subjects. But the fact is that there exist standard works in each and every department of medical science, in which the subjects are fully treated without the occurrence of a single expression which can gratify an idle fancy. It is not then essential to the character of medical works to be indelicate or coarse ; nor is this circumstance a recommendation to the reading public. Many of the older medical works have on this very account been consigned to oblivion ; and a similar fate as surely awaits those publications of the day which, however meritorious, contain expressions offensive to delicacy and good taste.

In applying these remarks to the work before us, we deem it just to qualify a censure which we have aimed principally at certain reports of lectures contained in a popular periodical. In this we rather object to a certain flippancy of manner, suited only to the character of a popular lecturer, than to any reprehensible passages, though such perhaps might be found. We cannot doubt that had Dr. Gooch prepared the work for publication, it would have appeared in every respect worthy of his fame. Whatever was prepared by him for the press, and appeared under his sanction, is rather remarkable for purity of thought and elegance of expression. Under similar care and revision, the present work would undoubtedly have received some improvements, and been still more worthy of a conspicuous place in the library of the student. As it is, it is by no means destitute of such merit. On the contrary, the practitioner of midwifery will find in it much to aid him in his laborious and anxious duties. The modes unfolded by Dr. Gooch, of treating the diseases of females and of infants, as well as his management of the latter in their earlier weeks, and the former during utero-gestation and labor, will be found judicious and satisfactory ; and, if the work before us is somewhat deficient in dignity and elegance, it is certainly ample in illustration and copious in details that may not be unacceptable to most, or without practical benefit to the younger members of the Profession.

Dictionnaire Universelle de Matière Médicale et de Thérapeutique Générale. Par MERAT et DE LENS. Paris. 1830.

WE have seen with much pleasure among the new productions of French medical literature, the three first volumes of a dictionary of the *Materia Medica*, to be completed in six of about 700 or 800 pages. Its professed object is to furnish an account of all the medical substances, medicinally employed, in every part of the world, so far as they have become known to the science ; of their natural history, mechanical and chemical charac-

ters ; of their effects and uses. The plan also includes an account of medicinal agents, not usually treated of in similar works, such as air, caloric, electricity ; of the mineral waters diffused over the globe ; of the various articles of diet, and of poisons. Of the extent of the work, and the nature of the plan, some idea may be formed from the following list of the articles, which we take from the Preface.

Articles on Materia Medica, Therapeutics, and Toxicology,	6,000
Food and drink,	2,500
Mineral waters,	2,000
General articles, classes of medicines, natural families, physical agents, &c.,	15,000
Synonyms, chemical, officinal, vulgar,	6,000
“ in foreign languages,	7,000

As a specimen of the manner in which the work is got up, we subjoin an extract on the use of belladonna as a preservative from scarlet fever.

Many German physicians since Hufeland assure us that by submitting to the influence of the extract of belladonna, persons who have been exposed to the contagion of scarlatina, they will be secured from contracting it. In 1820, a very violent epidemic scarlatina having shown itself at Gutersloh, no child was attacked with it who had previously taken the extract. (Rev. Med. x. 213.) It was given for the space of eight days. Hufeland has collected thirteen reports of divers German physicians, which have confirmed his opinion of the efficacy of this article. The professor thinks that its effect depends on diminished nervous susceptibility, without which there can be no contagion. (Jour. de Santé, Mar. 1826.) M. Martini also believes in this preservative power. (Rev. Med. II, 371). M. Ibréliste, physician at Metz, has seen twelve children preserved by this means from scarlatina, which attacked two hundred in the midst of whom they lived. (Bull. de la Soc. d'Em. 1823, Avril.) Dr. Nelson has given this plant to 247 persons, of whom 13 only contracted the disease. He prescribed 2 grains dissolved in 2 ounces of water, and 2 drachms of alcohol, of which he administered 15 to 20 drops daily. We observe that the use of this medicine is free from danger, and that there is no inconvenience in putting it in practice. It would appear from the researches of Dr. Wagner, on the comparative mortality of epidemics in which this remedy is, and is not employed, that in the former one patient dies out of sixteen, in the latter one out of three. Whole villages have preserved themselves in Germany, by taking belladonna when the disease has been epidemic in the immediate neighborhood. All the documents on the efficacy of belladonna as a preventive of scarlatina, have been collected by Hufeland, and published in a separate work. On the other hand a few physicians, whose proofs are not very conclusive, such as Schwurtz, &c. deny the preservative influence of belladonna against this disease.

We intend, from time to time, as occasion offers, to present to our readers other extracts from this interesting work.

A Catechism of Facts, or Plain and Simple Rules respecting the Nature, Treatment, and Prevention of Cholera. By A. B. GRANVILLE, M.D., F.R.S., F.L.S., F.A.S., F.G.S., M.R.I., &c. &c. Philadelphia, 1832.

How strangely, of late years, is the term *Catechism* perverted. In our youth it was associated with the best and most holy instructions of the Sabbath, and the very sight of the word brought to mind the sacred duties it was wont to teach. But the charm is now broken. It is appended to works the most trivial and common-place, on subjects of almost every description : catechisms we now have of chemistry, philosophy, mineralogy, &c., most of which, if not all, are calculated to convey a very superficial knowledge of the sciences of which they treat—a degree of knowledge which is not only almost entirely destitute of advantage, but actually injurious or dangerous. There are subjects that may be well taught in such popular forms ; but there are others, with respect to which the maxim *drink deep*, &c., cannot be too strongly enforced. Of all the modern “Catechisms” that have come under our observation, the most absurd and preposterous is the *Catechism of Health*—a book that contains many directions that are exceedingly ill judged, and others too simple to require being thus brought before the mind. All men but idiots know that night is the best time for sleep, and need no book to inform them that too much eating overloads the stomach.

In ranking this work as the most absurd, we should except that, the title of which is given above—*A Catechism of Cholera*. The work in itself is a mere compilation of the most unimportant facts, chiefly designed to vent the author’s apparent spleen against certain magistrates in London, and still more expressly to puff a nostrum of his own composition.

This work appears to us to be an ingenious expedient on the part of the author, to take advantage of any popular alarm in England about the cholera, to fill his own pockets, and, perhaps, those also of his friend and apothecary. The “alkaline drops” are recommended as the first thing to be taken by every individual attacked by the disease, before medical aid arrives. In addition to this, it is recommended as the best *preventive*. Thus has the author taken up the whole ground, and brought into notice an article which he would have every person purchase, whether sick or well, the moment the approach of cholera begins to raise the inquiry—what shall I do to escape it ? or, what shall I take if it attacks me ?

The book is a very small one, only about 100 18mo. pages, calculated for general circulation among all classes of people. The following extracts will show in what light the nostrum in question is held up by Dr. G.

“The great point in choosing from among the alkaline medicines which we mean to use, is to select one which shall be easily taken, which may be taken in a small compass, which shall be rapid in its effect of destroying the morbid agent in the stomach, and which shall impart tone to that organ, and energy to the circulation—neither magnesia nor bismuth possess all these requisites, though excellent in themselves. Hartshorn or sal volatile, or carbonate of ammonia, is preferable, but not, I think, sufficiently energetic, and permanent in the effect. These considerations have led me to think that the “alkaline drops,” which I mentioned in speaking of the treatment of cholera in another part of this work, would answer all the purposes above stated, and I was induced to think so by the extensive experience I have had respecting their use in cases of common indigestion and acidity of the stomach. Accordingly I lost no time in recommending all those, among my acquaintances, who have asked me for instruction how to act in case the cholera should appear in England, (and what person has not put the same question to his medical attendant by this time?) to take, as a preservative from one of the most prolific causes of cholera, acidity, and want of tone of the stomach, ten of the “stimulating alkaline drops” every night at bed-time, in a large wine-glassful of hot or cold water, and I have myself adopted the same plan. It is remarkable that several of these acquaintances who had before been habitually subject to indigestion and bile, and languid circulation, have, in the course of a few days of taking the preservative drops, been materially relieved from the unpleasant symptoms which before afflicted them. If, on going to bed, I find that the dinner is not undergoing an easy digestion in the stomach, and I experience any uneasiness, or feel the slightest acidity, I increase the number of drops from ten to fifteen.”

In order to get other competitors out of the way, the author begins by saying :—

“I premise my suggestion by stating that I place not the slightest faith in your Cajeput oil, camphor, oil of peppermint, or cinnamon—your pure stimulants, and all the cholera drugs which the late Board of Health have suddenly raised into notoriety by their recommendation, and through notoriety into a high price, which has proved the means of making the fortunes of some score of druggists. That which I recommend is simple, cheap, and I trust will be found intelligible as well as easy of execution.”

Thus much we have felt it our duty to say of the work of Dr. Granville, who, besides the long list of Romans appended to his name on the title page, has informed us of his deserts by modestly stating in a note, that Mons. Moreau de Jonnés did him the honor to assert, in a report to the French Institute in 1825, that “Dr. Granville, in my opinion, is one of the most skilful physicians in Europe in the knowledge of the phenomena of contagion—and in the means employed to combat it.”

Of the motive that led to the republication of this work, we must profess our utter inability to imagine. So far as the London Boards of Health are concerned, no very profound interest can be felt in them by the American public; and as to the nostrum—its composition is not even hinted at, nor is it advertised for sale in this country. We are informed in a note, that a recipe for this nostrum is left with a respectable apo-

thecary in London, where the "alkaline drops" may be purchased; and this is the only information we have respecting the mode of procuring these wonderful preservatives against the cholera.—We are the more surprised at this reprint, as the foreign medical works furnished the American Faculty by these enterprising publishers, are usually selected with great judgment.

We have room only to record the titles of the following English Books, just received by Carter & Hendee, of this city.

An Outline of the Sciences of Heat and Electricity, by Thomas Thompson, M.D.

A. C. Celsi Medicinæ, Libri VIII., Ex recensione, cum notis. Ed. Milligan, M.D. Editio 2 da auctior.

Lectures on Natural History, by William Lempriere, M.D.

Forsyth's new London Medical and Surgical Dictionary.

Essays on Physiognomy, by I. C. Lavater, with Engravings.

An Introduction to the use of the Stethoscope, by Wm. Stokes, M.D.

Knox's Anatomy of the Bones of the Human Body.

The latter work contains numerous engravings of the bones, and is accompanied by others of the nerves and arteries, all drawn with great accuracy, and handsomely executed.

P. S. *Sickness in Maine*.—We learn from Hallowell (Me.), that some apprehensions are entertained by the Faculty that the *Spotted Fever* has broken out again in that flourishing town. Several cases (and one death) have occurred with the same symptoms as detailed in Dr. Page's account of the "spurious peripneumonic form" of the disease, alluded to in this Journal, Vol. 5, page 391. Whether these cases are merely sporadic, or the commencement of an epidemic, time only can determine.

Deaths in Boston for the week ending April 21, 30. Males, 14—Females, 16.

Infantile, 2—scarlet fever, 7—measles, 8—intemperance, 1—dropsy on the brain, 1—consumption, 2—delirium tremens, 1—quinsy, 1—cancer in the breast, 1—brain fever, 2—inflammation in the bowels, 1—mortification, 1—convulsions, 1—croup, 1.

ADVERTISEMENTS.

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April 25.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

IS PRINTED AND PUBLISHED EVERY WEDNESDAY, BY CLAPP AND HULL,

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

WEDNESDAY, MAY 2, 1832.

[NO. 12.

TREATMENT OF UTERINE IRRITATION.

IN the treatment of this disease, the *indications* are, 1st. To correct the morbid condition of the uterus. 2d. To remove or mitigate the violence of troublesome symptoms in any individual case; and 3d. To restore tone and vigor to the general constitution.

In thus laying down the indications of cure, you will perceive that I have ventured to reverse, in some measure, the ordinary mode of procedure. I repeat to you, that the condition of the uterus, to the continuance of which I ascribe the various disorders enumerated in this lecture, has in most instances been altogether overlooked, or at least, if observed, it has only been in those cases which have had some of the characteristic symptoms present, in a strongly marked degree, such as excessive or very painful menstruation, or profuse leucorrhœal discharge; and even then, the condition of the uterus has been usually looked upon as a mere effect or consequence of the nervous or hysterical state of the entire frame, or in other words it has been considered as merely participating in a universally morbid sensibility. Hence the primary indication has commonly been to restore strength to the general system, regardless of the local disorder, although the ill success of the treatment founded thereon has at all times been frankly acknowledged; so much so indeed, as almost to have placed the disorders in question amongst the *opprobria medicinæ*. Having been led however to take a different view of the subject, I am necessarily induced to make the correction of the state of the uterus the first, or at least the principal indication, although of course the second indication, that of allaying troublesome symptoms, must often go hand in hand with, or in aggravated cases even take precedence of it. What then are the means best calculated to remove the morbid condition of the uterus, the irritable state of the organ? In the cases in which the uterine disorder has attracted attention, it has been recommended to bleed generally, to take blood by cupping from the loins, or by leeches from the region of the pubes, or from the pudendum; to purge, to give anodynes, to employ the warm bath, and to keep the patient in a recumbent position, even for months at a time. Of this kind are the principal remedies recommended in an excellent work recently published by a distinguished member of our profession—I mean Dr. Gooch. That gentleman treats of the complaint as it is attended

with actual tenderness of the os uteri to the touch, when an examination is made *per vaginam*. He enumerates the remedies I have mentioned, but with those expressions of extreme distrust which mark the man of candor and of truth, and with that modesty which, when united to extensive experience, commands the assent of every reader. Now, that all these remedies may be occasionally serviceable, or even necessary, I am not presumptuous enough or inclined to deny : depletion, general or local, in the plethoric, and anodynes and laxatives in most cases ; yet speaking from experience, this object, this grand object is secured with much greater certainty, and much more speedily, by applications made directly to the uterus itself, and parts adjacent. The applications to which I allude, are *cold astringent washes*, injected *per vaginam* by means of a proper syringe. The ordinary womb syringe answers the purpose exceedingly well, but one of any convenient shape may be used, provided it be sufficiently large to contain from four to six or eight ounces of fluid. The injection should be introduced with such a degree of force, as shall secure its application to the upper part of the vagina, and to the os uteri ; and the operation should be repeated two, three, or four times a day, according to the circumstances of the individual case.

Either the mineral or vegetable astringents may be used ; the former however I prefer, as they do not stain the patient's linen, and consequently are not so much objected to. With respect to the precautions to be observed in the employment of these injections, very few are required beyond what common sense would dictate. Should the injection occasion smarting, which is by no means unfrequently the case at first, it may be diluted with water, or water alone may be used till the original tenderness subsides, which for the most part it will soon do. It will also be prudent to instruct the patient to relinquish it a little before the expected period of menstruation, and to resume it as soon as that period is over. These are almost the only precautions I have ever deemed it necessary to observe. Although in very irritable habits, and especially when the stomach is liable to be affected with pain and spasm, it may be as well to direct the wash to be used tepid at first, gradually diminishing the warmth till it is brought to the ordinary temperature of the patient's apartment, which will pretty uniformly be borne exceedingly well after a time, except perhaps during a few of the coldest months in winter. The wash I most frequently employ is the *Liquor Aluminis Compositus*, of the London Pharmacopœia ; that is, two drachms of *alum*, and two of *sulphate of zinc*, to a pint of water. This practice must be persevered in for a length of time, proportionate to the obstinacy of the case and the effects it produces. Indeed, I myself recommend females never to relinquish it, but to employ it from time to time, as long as they continue to menstruate, to prevent the recurrence of the disorder, and its unhappy consequences. I have said that the patient should desist from the use of the injection, a little before and during the menstrual period ; but she ought also to be specially cautioned against using any violent exertion, or undergoing any unusual fatigue at that time, as nothing so completely thwarts your purpose as imprudence committed whilst the irritable uterus is performing its functions.

When the uterine irritation is characterized by frequent and excessive flow of the menses, I have directed the patient to remain quiet in or on the bed, and to desist from the wash during each recurrence ; not having ventured to carry the practice to the extent of attempting to restrain even such excessive discharge by local astringents. But when there is decidedly painful menstruation, or pain felt in the *womb, loins, or thighs* before the appearance, although there be no leucorrhœal discharge whatever in the interval, I nevertheless apply the cold wash to such subjects, precisely in the same manner as if such leucorrhœal discharge were present, on the principle that this leucorrhœal discharge is itself a mere symptom or effect of the state of uterus and neighboring parts, which I am anxious to remove. Such is the *local* treatment that experience and observation have led me to adopt, and which, after a long trial, I venture, with some confidence, to recommend to you. It is just possible that circumstances not noticed by me may occasionally occur to interfere with or forbid the practice ; but, I speak of generalities, and not of universal principles—universal principles are unknown in our profession.

The second indication—to *allay or remove troublesome symptoms*—must, of course, be variously fulfilled, according to the circumstances of the particular case, but the remedies employed for the purpose will necessarily co-operate with the local treatment to afford relief to the patient ; unless, indeed, the severity and character of the troublesome symptoms be such as to render the *immediate* application of the wash either doubtful or hazardous—as *e. g.* when the stomach is the seat of severe spasm, or the bladder or abdomen generally acutely painful, in which cases the second indication must take precedence of the first. Should the symptoms merely consist of the susceptible state of body and mind before described, or should this be accompanied by that modification of derangement of the digestive organs characterized by flatulency and irritability of the stomach and bowels, the general treatment need be very simple. I say nothing of *bloodletting*, as the propriety or impropriety of this must be apparent from the state of the circulation, always keeping in mind that such subjects bear bleeding badly, especially in large quantity, and that mere *frequency* even with *sharpness* of the pulse, is, in the highest degree, fallacious : a full, hard pulse, with considerable heat of skin, and more or less throbbing or pain in the head, will point out the expediency of a moderate bleeding. *Purgatives*, or rather *Laxatives*, ought never to be neglected, but much caution and judgment are required in their proper selection and application. The bowels, it is true, are generally costive, but it must be remembered that they are as uniformly in a weak and irritable state ; hence those purgatives should be selected which give the least pain, and have the least tendency still further to weaken their tone. Watery saline purgatives are ill suited to the majority of such cases ; they often perform their office imperfectly, and although they may not produce much pain, which they often do in such subjects, they, nevertheless, tend, by frequent use, further to impair the tone of the bowels, and to increase the disposition to flatulency. Except, therefore, at the commencement, in plethoric subjects, or where the disorder exists in connexion with menorrhagia, the saline purgatives are not commendable. *Castor oil*, when it agrees with the patient's

stomach, will be found more generally serviceable, perhaps, than any other. In many cases, the warm and resinous purgatives, though at all times more irritating, answer exceedingly well, emptying the bowels of their feculent contents, and expelling flatus without leaving any increased tendency to flatulency afterwards, as is the case with the watery saline purges. A little *Compound Extract of Colocynth*, or equal parts of this and *Extract of Rhubarb* with a little *Extract of Hyoscyamus* to obviate griping; or the above extracts may be given with a little *Blue Pill*, should a mercurial laxative be indicated by the appearance of the secretions. Calomel very often gripes severely, whether alone or combined; yet such is the variety of constitutions met with, that the Compound Extract of Colocynth with Calomel often proves the most effectual and not the most painful purge. One or other, then, of these laxatives may be necessary once or twice a week.

In the case I am now treating of, that is, where there is no abdominal pain, the medicine that I have found to afford the greatest relief is unquestionably the *Ammonia*, given either in common mint or camphor julep, alone or with a few grains of *Magnesia*; about ten or fifteen minims of the *Liquor Ammoniae Subcarbonatis*, with from eight to ten or fifteen grains of *Subcarbonate of Magnesia* two or three times a day. If it create any approach to pain in the stomach, or a disagreeable sense of heat there, these effects may sometimes be obviated by adding about half a drachm of Tincture of Hyoscyamus, or a drachm or so of the Tincture of Hops, to each dose. This ammoniacal mixture seems, by its stimulus, to expel flatus, and thereby to afford relief to many of the uneasy and unhappy sensations, and to raise the spirits of the patient. I have often given the Ammonia along with the *Mistura Myrrhæ* of Guy's Hospital, an ounce or a dose of which contains, I believe, about twenty grains of Myrrh, and is made with the Decoction of Liquorice root.

But suppose that, with more or less of the general symptoms, we have pain under the left mamma, or in any of the other situations pointed out, what modification of treatment ought we then to adopt?

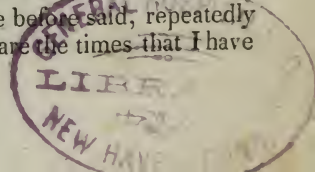
The pain under the left mamma is of such frequent occurrence, that it becomes a matter of the very first practical importance to bear it carefully in mind when called upon to treat the disorders of young females. There is no local pain more frequently mistaken, and there is, perhaps, no local disorder so maltreated as this. Over and over again have I known patients blooded, cupped, blistered, and anointed with acrid ointments, for months in succession, not only without relief, but with the most serious injury to their general health, whilst the uterine irritation has been altogether overlooked. Indeed, in thus declaring and denouncing such a mistake and such bad practice, I candidly confess that I am only declaring and denouncing "*quæque ipse miserrima vidi, et quorum pars magna fui.*" In truth, it was the frequent occurrence of this obstinate and intractable pain that first led me to a close and minute investigation of the subject of uterine irritation, having, like others, repeatedly blooded, cupped, and blistered in vain in such cases. Since, however, I have been guided in the treatment by the principles I have ventured to lay before you, my success has been much more certain and decided; and when the treatment founded thereon has not fully answered my expectation, it has

at least been attended with the negative advantage of inflicting no unnecessary injury on the patient's general health.

In pointing out its non-inflammatory nature, do not imagine that I contend for the impropriety of bleeding or cupping or blistering in every instance. On the contrary, in plethoric subjects, one or two general or local bleedings may occasionally prove of service ; but merely, I believe, as such practice might be expected to afford relief in an ordinary colic, or any other similar painful affection. Depletion, however, is very far from being, in general, necessary, and probably will, in a majority of cases, be positively hurtful, teasing and exhausting the patient without any adequate or permanent benefit. I have known Cupping, Leeches, a Blister, or an Opiate or Belladonna plaister, afford relief ; but they all often fail, and will generally do so, or at least be merely followed by a temporary respite, unless the condition of the uterus, and other circumstances I have pointed out, be attended to. Hot fomentations to the part will sometimes afford relief, but are attended with the same uncertainty as the other local remedies mentioned. Under the use of the injection, however, and the ammoniacal mixture, with Tincture of Hyoscyamus, or with three, four, or five grains of the Extract of Conium, in the form of pill, alone or with a grain or so of blue pill, according to the state of the secretions, the pain will generally yield, although the patient, as might be expected, will for a longer or shorter period be liable to a recurrence, until the original irritation, and its effects upon the abdominal viscera, shall have been overcome by a steady perseverance in the use of appropriate remedies. In some instances the ammonia cannot be borne, when the plain Camphor, or Mint julep, may be substituted, with half a drachm or so of the Tincture of Hyoscyamus ; or four or five grains of the Extract of Conium may be given in the form of pill twice or thrice a day. In other cases, again, you may try six or eight drops of Batley's Liquor Opii Sedativus at bed time, unless it offend the stomach or the head. Should it constipate the bowels, proper laxatives must be had recourse to, in order to obviate such an effect ; I prefer, myself, the Conium, or Hyoscyamus. Unless, however, it happen thus to disagree with the patient, the ammonia will answer best, guarded, of course, by the anodynes.

In those cases in which the pain shifts its seat from time to time, I limit my *external* remedies, generally, to hot anodyne fomentations ; such as the Decoction of Poppy-heads, or what often answers very well, the hot Infusion of Chamomile Flowers, the flowers themselves being inclosed in folds of flannel, the more effectually to retain the warmth. I may also here observe again, that this tendency to shift its seat, together with the unsteadiness in the degree of the pain, form the most important diagnostic indications ; whilst in most instances, we shall find, on inquiry, that the patient had suffered more or less from the complaint for some time before she applied for advice. Attention to these circumstances will materially assist us in our diagnosis, not only in these, but in the other painful or neuralgic affections attacking the abdominal viscera.

When the pain is situated in the *right hypochondrium*, or under the margin of the ribs of the right side, it is, as I have before said, repeatedly mistaken for, and treated as, hepatitis, and many are the times that I have



known poor delicate women blooded, cupped, blistered, and salivated on this supposition, till they have been brought almost to the very brink of the grave. It is to be distinguished by the symptoms and circumstances already pointed out, and when ascertained, is to be treated upon precisely similar principles to those so minutely detailed. In these cases, patients sometimes tell us that our medicines, especially mercurial and resinous purgatives, greatly aggravate the pain of the part during their operation. Cupping, Leeching, and Blistering, will each occasionally, but only occasionally, afford relief; whilst, generally speaking, I would say, that in this form of the complaint hot anodyne fomentations, assiduously applied, are more decidedly beneficial than in the former case, but in other respects the same means may be pursued. In some cases, four or five grains of Dover's powder, twice a day, will afford relief; in other instances, the more powerful combination of calomel and opium has been tried with effect. The calomel, however, ought to be given with great reserve, and never, if possible, to such an extent as to affect the system; in short, in all cases, the less violent measures we employ the better.

When the pain seizes the track of the colon on either side, the same treatment will apply, as it will also when the stomach becomes the seat of the pain; unless, indeed, severe spasm accompany it, when more active measures must be had recourse to, as a full dose of *Liquor Opii Sedativus*, or even a full dose of *Laudanum* and *Sulphuric Æther*, as I shall presently show.

I have said that the pain occasionally attacks the whole of the belly, exactly simulating acute peritonitis. This may be attended either with a flaccid or a tympanitic state of the intestines, the latter proving by far the most painful of the two, the slightest touch causing the patient to cry out.

This generally diffused pain is not unfrequently associated with that modification of uterine irritation marked by excessive menstruation, both in point of quantity and frequency. But in such cases, whether with or without menorrhagia, it will require all your tact and discernment, and what is more, it will require all your philosophy and forbearance, to abstain from copious depletion under an apprehension that it may be peritonitis. The history of the case will generally raise a doubt, and will often bring conviction; but if a doubt do really exist, it will always be prudent to err on the right side, and treat it as inflammation.

When *unaccompanied* by excessive menstruation, the same general rules of treatment are to be observed as have already been detailed; moderate bleeding if much plethora and headache, with a full pulse, prevail; and the free use of laxatives and fomentations. In both forms of the complaint, to relieve the pain in this situation, I hold the *Liquor Opii Sedativus* to be by far the most efficient remedy, as well as attended with the least inconvenience to the patient. With due attention to the bowels, therefore, six, eight, or ten drops may be given every night, or every night and morning, according to the urgency of the pain.

When *attended with excessive menstruation*, there very usually prevails a plethoric condition of such irritable subjects, so that a moderate bleeding will commonly form a very good mode of commencing our practice: or if there be much forcing, or bearing down, the patient may be cupped

from the loins. In all cases of this kind, too, the patient during the flow, and for a short time before the expected recurrence, should be strictly enjoined to remain in the horizontal posture ; to be kept cool, and to live upon low and bland diet. Nothing so certainly or so greatly aggravates cases of menorrhagia, even when without abdominal neuralgia, as the ill-founded and ill-judged practice of giving tonics and stimulants, on the erroneous supposition that such excessive discharges are the result of weakness. Repeatedly have I known the most serious mischief result from the practice here pointed out ; patients having been given Bark, Port wine, and cold Porter, merely because they complained of great debility, and because such complaints of debility have tallied with the preconceived notion of the practitioner, that the disease had its origin in weakness. You must be careful to distinguish a *weak and relaxed*, from a merely *irritable*, or a *delicate and irritable* habit ; it is the latter in which you most frequently meet with the menorrhagia, of which I now speak. The excessive discharge is intimately connected with such irritability of the system at large, and of the uterus in particular ; tonics and stimulants only tend, therefore, to produce excitement ; to augment the action going on in the irritable uterus, and thereby to increase the sufferings and exhaust the strength of the patient. As far as the discharge is concerned, therefore, your object is to allay the vascular excitement by moderate depletion and purging, and to allay irritation by anodynes and rest. A free action on the bowels exerts so powerful an influence over excessive uterine discharge, that I am often induced to administer divided doses, either of the Magnesia and Salts mixture, or of the Salts dissolved in the Compound Infusion of Roses ; endeavoring to obviate the increase of the neuralgic pain of the belly, which is liable, when it prevails, to be aggravated by the Salts, by giving at the same time about five grains of Extract of Conium or Extract of Hyoscyamus, three times a day instead of the Liquor Opii Sedativus. In general, however, other laxatives may be given occasionally, to maintain a free discharge from the bowels, and to counteract the effect of opiates, should we determine upon a trial of them ; for this purpose Castor oil, or Calomel and Rhubarb, may be given ; or the object may be, to a certain extent, accomplished by the use of glysters. If in spite of our depletion, laxatives, and rest, the flooding still continues to prevail, without neuralgia of the abdomen, I generally direct the patient to apply cold vinegar and water, by means of a sponge, to the lower belly, two or three times a day ; employing at the same time anodynes, or anodyne glysters, in order to allay the irritability of the womb itself.

If you have flooding alone, then, without neuralgia of the belly, you will bleed generally or locally, according to the state of the patient's system at the time ; keep up a free action on the bowels ; keep your patient cool, and on low diet, and administer anodynes, either by the mouth or by glyster, with or without cold sponging, according to the severity of the case. Should flooding prevail along with the neuralgia of the belly, precisely the same remedies, with the exception perhaps of the cold sponging, will be required ; whilst, if the neuralgia exist alone, the case becoming much more simple, must be treated on common principles ; *i. e.* general bleeding, according to the degree of excitement of the heart and

arteries : perhaps leeches to the belly, hot fomentations, laxatives, and anodynes, either given by the mouth, such as *Liquor Opii Sedativus*, *Conium*, or *Hyoscyamus* ; or in the form of glyster, as thirty or forty minims of *Laudanum*, with a little thin starch. Even in flooding cases I never give the lead, as I never fail by more gentle means to subdue the disorder, and I have known the lead induce severe colic.

I need only observe further, that, if you should feel disposed to try the *Oleum Terebinthinæ*, I should consider it best suited to the general neuralgic state of the belly, without flooding or excessive menstruation in any form. From two drachms to half an ounce may be given with three or four drachms of castor oil. I am, however, averse to it myself, from its liability to offend the stomach and be rejected, but more especially from its tendency to act with violence on the kidneys.

Such are the means which I have found most frequently of service in alleviating the more prominent and distressing symptoms attendant upon uterine irritation ; means, I confess, often insufficient for the purpose, unless long persevered in, and this too in conjunction with the local treatment already mentioned. Many other medicines and expedients will undoubtedly suggest themselves in particular cases, as *Camphor*, *Musk*, the *Warm bath*, and such like ; or should the secondary local pains described not be considerable, the *fetid gums*, especially *Assafœtida*, will often afford some, though tardy relief. Indeed these fetid gums have attained a high character as *antihysterics*, but appear to me, chiefly, if not exclusively, adapted to relieve some of the symptoms more particularly connected with the condition of the bowels ;—they expel flatus, raise the spirits, and moreover appear to restore tone to the alimentary canal, provided the original source of the evil be attended to at the same time. In the less painful forms therefore of the disorder, these fetid gums are worth a trial, and will often afford considerable relief to the feelings of the patient.

Much of what has been said, merges in the *third indication* ; viz. to restore strength and vigor to the general habit. Of the best means of accomplishing this I need say very little, beyond remarking that the *early* use of *tonics* has been extensively adopted, and has consequently been given a fair trial, whilst almost all are agreed as to the very unsatisfactory results, in a large majority of cases ; the cause of which you will now be able, in some degree, to appreciate ; I mean, of course, inattention to the local irritation, from which I suppose the whole mischief to proceed. In the highly irritable and susceptible state of the body at large, and of the alimentary canal in particular, the more stimulating or irritating tonics cannot be borne, creating sickness, pain or uneasiness at stomach, loss of appetite, headache, and divers unhappy sensations not easily defined by the patient. Chalybeates not only offend in this way, but are extremely apt to excite the uterus, so as to produce excessive menstruation, if it did not previously exist, or to aggravate it, if it have already prevailed. Exceptions do undoubtedly occur, but the objections to them stated are founded on personal experience. The *Sulphate of Zinc*, however, may sometimes be given early, with advantage, provided it do not offend the stomach. A grain to begin with may be given night and morning, alone, or with a few grains of the *Extract of Conium*, or of *Hyoscyamus*, or

with a little of the *Pil. Galban. Comp.* ; or it may be given along with two or three grains of the *Extract of Gentian*, or *Extract of Bark* ; or these latter may be given without the Zinc. Any of these may be tried, and persevered in, till the local disorder and the most prominent of the general symptoms shall have been subdued to a certain extent, when less reserve may be observed as to the nature of the tonics we employ ; the chief of them are *Bark*, *Bitters*, *Chalybeates*, the *Cold Bath*, and *Country air*.

Communicated for the Boston Medical and Surgical Journal.

TREATMENT OF EPIDEMIC CHOLERA.

IN the *Medico-Chirurgical Review* for January, 1832, it is estimated by the Editor, that rather more than a third of the cases of Epidemic Cholera, since it has prevailed in Europe, have proved fatal. Had the account been continued two months later, the result would have been still more unfavorable, since on the 6th of March, the date of the latest returns which have reached this country, there had been reported 300 cases in London, and 178 deaths, showing that more than one half of the subjects of the disease, in that city, had fallen victims.* We have nothing, therefore, to learn from the practice of the most distinguished physicians in Europe, except to notice their errors, and to avoid the rocks and shoals upon which they have made shipwreck. Let us turn from these scenes of horror to the writers of our own country.

As every symptom of the European disease, and almost every combination of the same symptoms, have been frequently observed in their greatest urgency and severity, and very often treated with success, during several of the epidemics which have appeared in the Eastern and Middle States, as well as in Canada, within the present century ; we must turn to the writers of our own country, if we expect to find any valuable information, which may serve as a guide, in case of the appearance of the cholera among us. The physicians who have been thirty years in practice, and in the habit of reading the medical productions of our own country, must be familiar with American authorities. It is, however, sometimes difficult for the younger part of the Profession to know what books to refer to, when they are making research upon a particular subject ; and from their not being familiar with the periodical writings which immediately preceded them, they are often less acquainted with the medical history of the last thirty years, and especially of their own country, than with that of any other period since Physic has been a regular profession.

The following list, though acknowledged to be quite imperfect, is believed to contain the principal authorities upon the disease at first denom-

* Since the above was written, intelligence is received as late as March 28th, which bring the most alarming report of the want of success in the London practice. Out of 1365 cases, there have been 742 deaths ! and yet, depletion by the lancet is persevered in ! ! ! It is very probable that still more alarming accounts may arrive before this is seen by our readers.

inated *spotted fever*, but since, much more appropriately named *typhus syncopalis* or *sinking typhus*.

1. History of a singular and very mortal Disease, which lately made its appearance in Medfield, Mass. By Drs. Danielson and Mann. Medical and Agricultural Register, Boston, May, 1806. This is the earliest account of sinking typhus, as a distinct disease. It was republished in Dr. North's treatise.

2. Dr. North's Treatise on Spotted Fever, besides his own observations, contains most of the fugitive articles which had been published at the time, and ought to be read by every practitioner. It was printed at New York. The date is not recollected.

3. Dr. Strong's Dissertation on the Disease termed Petechial or Spotted Fever. Hartford, 1810.

4. Dr. Fisk's Remarks upon Spotted Fever as it prevailed in Hartford, Conn. in the year 1809. Published in the Transactions of the Physico-Medical Society of New York, Vol. 1. 1817. These two works describe a variety as severe as epidemic cholera.

5. An account of Petechial or Spotted Fever as it appeared in Stanstead, Lower Canada, in 1811, by Drs. Whiteker and Lyman.

6. Dr. Hale's History and Description of an Epidemic Fever, commonly called Spotted Fever, which prevailed at Gardiner, Maine, in the Spring of 1814. Boston, 1818.

7. Report of a Disease commonly called Spotted or Petechial Fever, read, accepted, and approved, at a meeting of the Counsellors of the Massachusetts Medical Society, June 21, 1810.

8. Dr. Comstock's Treatise on Febrile Diseases, read before the State Medical Society of Rhode Island. 1814. Dr. C. now resides at Lebanon, Connecticut, and possesses a manuscript giving much further details of sinking typhus, illustrated by several striking cases.

9. Typhus Syncopalis, or Sinking Typhus, or the Spotted Fever of New England, by Thomas Miner, M.D. Middletown, Conn. 1825. It has been copied and republished, abridged or entire, in four or five other works, the fullest of which, with additional notes, is in the American Medical Recorder, Vol. 12, July 1827.

10. There is also, by the same writer, in the American Medical Recorder, Vol. 13, April 1828, page 285, an Essay on Malignancy, which applies to diseases of this description.

11. The judicious and valuable account of Spotted Fever, by Dr. Page, is contained in Dr. Thacher's Modern Practice.

12. In the Notes to Gregory's Practice, by Drs. Potter and Calhoun, will be found the best digested account of Typhus Syncopalis, that is to be met with in any systematical work.

13. The latest original article upon Typhus Syncopalis is by Jared Potter Kirtland, M.D. of Poland, State of Ohio. It contains a very lucid account of the disease, as it appeared in the County of Trumbull in that State, in the year 1827. See American Medical Recorder, Vol. 15, July 1829, page 449.

Whoever will peruse these works, or even confine himself to the abridged accounts of Typhus Syncopalis, as contained in the writings of Drs. Thacher and Calhoun, will be immediately struck with the similarity

of the disease, in its severest form, to epidemic cholera. The fever in both cases is of the same type, they are both sinking diseases, in which the system has received such a shock during the cold stage, that the succeeding period of reaction is not developed at all, or at best is but very feeble and imperfect. The vital powers appear to be sunk and exhausted at once, as if by lightning, carbonic acid, prussic acid, or an overwhelming dose of some animal, vegetable, or mineral poison. The writer once saw a person die, in consequence of taking, to commit suicide, a drachm or two of arsenic. This case could not have been distinguished from some of the varieties of typhus syncopalis, or of epidemic cholera, and its nature would not have been recognized had it not been soon discovered that arsenic was the cause. Diarrhœa, emesis, catharsis, colic, spasms, leaden hue and coldness of skin, absence of pulse, syncope from an erect position, extreme clearness of intellect, as well as delirium and coma, diminution or suppression of common secretions, hippocratic face, and above all *gastric sinking*, or a deathlike anxiety at the stomach, are among the prominent symptoms that are frequently found in both diseases. If there exists any local inflammation in either disease, it is as atonic and passive as the gangrenous affection in the throat of the severest cynanche maligna, or the worst carbuncle in the plague, and is no more to be cured by depletion and evacuation in one case than in the other.

Seeing the utter failure of the European physicians, in their treatment of the present epidemic, it behooves our practitioners to make themselves masters of all the principal writers of their own country, who have been familiar with cold, sinking febrile diseases. Their writings are not theories or hypotheses, but histories of facts, observed by as impartial and respectable witnesses, as the world affords upon any professional subject.

Quæquæ ipse miserrima vidi.

CELSUS.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, MAY 2, 1832.

PHYSIOLOGY.

IN the absence of other interesting topics, we venture to recall the attention of our readers to experimental physiology, which, in the late press of other matters, has for some months scarcely been mentioned in our pages. We have before us a short paper read to the Royal Academy of Sciences in Paris, by M. Flourens, and published in their tenth volume, on the action of the spinal marrow upon the circulation. We shall present an abstract of this paper nearly in the author's own words.

1. It is well known to have been the opinion of Le Gallois, and one which has gained much celebrity, that the spinal marrow is the seat of the motive power of the heart.

2. In 1823, I performed some experiments which went to show, first, that the circulation, which in adult animals is universally suspended by

the destruction of the spinal marrow, survives this destruction for a certain time in animals just born ; second, that even in adult animals, as Wilson Philip had before proved, the circulation will survive this destruction, provided respiration be artificially maintained.

3. Thus in the young animal, in whom respiration is less necessary to circulation, the spinal marrow is also less so; and in the adult animal when the respiration is artificially maintained, the circulation survives the loss of the spinal marrow. It is then because it is essential to respiration, that the spinal marrow is essential to circulation.

4. From this it would follow, that if there were an animal in which the respiration was independent for a certain time of the spinal marrow, the circulation ought to be equally so.

5. Such an animal is the fish : I have shown, in former experiments, that we may destroy the spinal marrow entirely in fishes without suspending the respiration ; since it is not from the spinal marrow in this animal, but from the medulla oblongata, that the nerves which go to the gills are derived.

6. We may also destroy the spinal marrow in fishes, without suspending the circulation.

7. I have destroyed successively in several carps and barbets the whole spinal marrow without touching the medulla oblongata ; in all these fishes, the respiration and circulation have for a long time survived this destruction. The movements of the trunk and its appendices were indeed destroyed ; but the head and the gills continued to move as usual ; and the circulation still continued, even at the extremity of the trunk, more than half an hour after the total destruction of the spinal marrow.

8. On the other hand I have always seen in other classes the circulation survive the destruction of all the parts of the spinal marrow which the respiration survived : the destruction of the lumbar medulla, for example, in birds ; that of the lumbar and costal medulla in mammiferæ. In many birds, such as pigeons, chickens, &c. I have destroyed the lumbar medulla, and the circulation has continued several hours even in the hind legs. Finally I destroyed in several frogs all the spinal marrow except the single point of medulla cervicalis, whence spring the nerves which go to the neck, that is, which supply the respiratory apparatus of these animals ; and the circulation as well as the respiration has survived a long time.

9. It appears, then,—1st. That we may destroy with impunity to the circulation all the points of the spinal marrow whose integrity is not essential to the respiration, and that when the latter function is independent of the spinal marrow, as in the fish, the former will be found equally so. 2. The spinal marrow has upon the circulation as well as on the respiration only a relative and variable action. 3. In the same manner and by the same points by which it influences the respiration, the spinal marrow

affects the circulation also ; and, 4. It is not in this that resides the essential, still less the exclusive principle of the circulation.

By *impunity*, as the author afterwards explains, he means only so far as one absolute or exclusive principle of action is concerned : for the destruction of the spinal marrow always weakens at once the circulation, and at the end of a certain time determines its abolition ; but this is not in virtue of any special action on the heart, but in consequence of the general changes induced in the system.

Geographical Relations of Yellow Fever.—Yellow fever shows a most decided predilection for the northern hemisphere. The equator seems to present to it an insurmountable bar. Yet at Rio Janeiro, in Brazil, at places in Chili and Peru, and in certain localities on the coasts of Africa and Asia, all the conditions of atmosphere and soil most favorable to the disease would seem to exist in a state of concentration.

It cannot be on account of the greater heat of North America that the complaint is so peculiarly attached to that quarter, for Brazil and Peru are of a temperature infinitely higher than is to be found in the United States, nor are they destitute of changes or of extreme humidity. Guayaquil and Panama, which are situated but a few degrees north of the line on the west coast of America, are ravaged with yellow fever, while Lima, fourteen degrees south, as Martinique is fourteen degrees north, is very healthy, though far from being very cleanly.

What have the winds to do with the question ? Their direction and intensity seem to have much concernment in it, yet it is difficult to state anything with precision on this point. We can only say, that the prevalent winds on the west coast of South America, or the south-westerly, come from the ocean, as at the Antilles, when the trade-winds similarly come from the main. Has the elevation of the country anything to do with it ? It would seem not, for Avica, in Peru, is not only situated on the flat low sea-coast, but is exposed to a breeze which blows perpetually off an island covered thickly with the dung of sea-birds, diffusing a stench which infects the air around the whole country to a great extent. Avica, however, is entirely free from the desolating malady. Quilia, another town of Peru, is also on the coast, and near a river : it is an extremely hot situation, yet the yellow fever never shows itself there. At Lima, the unseemly nastiness of the streets is remarkable : dead dogs, asses, and mules, are left there to putrify, without removal, even after the birds of prey have devoured everything but the bones. Nor is the disposal of the human body better cared for in that region ; the graves in the immediate vicinity of the city are quite exposed, and uncovered with earth. The humidity of the atmosphere, too, is extreme and invariable : the sky is perpetually charged with clouds, and the sunbeams can never reach the soil : in short, neither are there here any occasional brisk gales to dissipate the malaria which is constantly accumulating. Yet, with all this, yellow fever never makes its appearance at Lima ; nor do we find the inhabitants particularly disposed even to gastric affections, bilious complaints, or any of the disturbances which seem to have relationship to the disorder.

This preference of yellow fever for the northern hemisphere is still further countenanced by what occurs in the old world—we allude to the

frequent epidemics of Leghorn, Barcelona, the coast of Africa, and the almost annual affliction of Cadiz.—*From the Notes of M. Sper, R.N. of France.*

External Application of Croton Oil.—M. Andral has recently published an account of some of the experiments which he has been making with the croton oil. In more than thirty cases he had it rubbed upon the skin of the abdomen, thighs, or arm pits, in quantities varying from four to twenty drops; sometimes pure, sometimes mixed with almond oil. These frictions were made under different circumstances, and in some instances certainly under conditions favorable to absorption; yet, to his astonishment, no appreciable result referable to such effect was met with, except in one instance. On the other hand, in all the patients an eruption appeared on the parts where the friction had been employed, differing in degree according to the quantity of oil, and the part rubbed, and the sensibility of the individuals. The following were the general phenomena:—A few hours after the friction (supposing this to have been employed for some minutes) the patients experienced a smart tingling in the part. In some this sensation was transient, in others prolonged, but never to such an extent as to produce troublesome nervous disturbance; at the same time there appeared a great number of little red points, at the apices of which there soon were perceptible little pustules, which within from thirty to fifty hours had become fully developed. Many of these became united, and then formed large patches, filled with white opaque fluid. The eruption increased for three or four days, after which it remained stationary, and subsequently died away like smallpox. In some cases where the oil was applied to the face, the eruption was more copious and intense than elsewhere.

Thinking that this form of counter-irritation might prove serviceable in cases which had resisted other means, M. Andral had recourse to it; in many of these it also failed, but in others the improvement was so rapid, as to show the friction to be a therapeutic agent of considerable value. Among the successful cases are enumerated old rheumatic pains, obstinate sciatica, numbness of one side of the face, and chronic inflammation of the alimentary canal.—*Gazette Medicale.*

Biliary Fistula.—At a late meeting of the Academy of Sciences in Paris, M. Civiale read an account of a case of biliary fistula, exhibited by a patient now in the Hôpital Necker. The subject is an officer, who, in the campaign of 1812, received a thrust with a lance in the abdomen, and was left for dead on the field of battle. The wound had penetrated the cavity on the right side, about two inches from the umbilicus. There resulted from this a ventral hernia, which was restrained by means of a circular bandage round the body. Since that time the patient has lived in an alternate state of health and suffering till the autumn of 1831, when a urinary calculus having made its appearance, he came to Paris, to be treated at the hospital above mentioned. The digestive organs were found to be much impaired; and the liver was so much enlarged as to extend to the umbilicus. It soon became apparent that this viscus contained purulent matter; and the abscess was subsequently opened with all due care. The fluid evacuated did not present the usual characters of pus coming from the liver. When the suppuration had nearly disappeared, a greenish fluid escaped from the opening; and at length one

day, after a violent fit of colic, a considerable quantity was evacuated, with regard to which there could be no mistake in taking it for bile. From this time a similar discharge has occurred at each dressing. Loss of appetite, and sleep, and great emaciation, were the immediate consequences of this evacuation of bile. Three days after the stools became white, but there was neither constipation nor looseness. The digestion, however, became gradually restored, but the skin has not yet regained its natural appearance. About a wineglassful of bile is evacuated in the course of twenty-four hours; the quantity, however, during the two days preceding the date of the narrative had become diminished. The operation of lithotripsy was performed notwithstanding the above complication, and apparently with complete success.—*Ibid.*

Endermic Application of Morphia in Cases of Rheumatism of the Joints.—Messrs. Trousseau and Bonnet have recently published in the Archives (Nov. 1831), many cases of rheumatism of the joints, which were successfully treated in this manner. For the purpose of detaching the epidermis, they recommend a pomade composed of equal parts of concentrated ammonia and lard, and one fifth part of suet. This application is preferred to cantharides, on account of the rapidity with which it acts, and the facility with which its effects are limited. The acetate, hydrochlorate, and sulphate of morphia were used; but the two latter were particularly selected, for their greater solubility, and consequently more ready absorption. The spot chosen for the application of the remedy should be as near the seat of pain as possible. The quantity of morphia applied should be from one to two grains, according to the effects produced.

Diagnosis of Hydrocele.—M. Segalas recently submitted to the Académie de Médecine a new method of ascertaining the transparency of the parts in doubtful cases of hydrocele: he applies to the scrotum one extremity of the eye tube which is used for exploring the urethra, and puts his eye to the other, and he thus detects the existence of fluid, if it be present. The result is explained by the isolated condition of the eye, the perpendicularity of the rays of light transmitted through the tube, and the pressure of the instrument against the scrotum. M. Roux doubts the utility of this method in certain cases, as when the tunica vaginalis is much thickened.—*Gaz. des Hôpitaux.*

The Editor of the London Medical Gazette observes, and we think correctly, "that M. Roux's objection proves nothing; and perhaps the only circumstance that would tend to depreciate the utility of the new method is, that it enables us to see *too well*,—to discover transparency where such a thing could be least expected. With the tube and a candle, light may be perceived through the palm of the hand."

Corrector of Opium.—According to M. Puchelt, a German physician, the sulphate of soda is an excellent corrector of the unpleasant effects of opium, given in the proportion of a scruple to half a grain of opium. This dose may be repeated two or three times a day. In combination with Glauber's salt, opium, he says, may be administered in cases where slight plethora, local or general, prevents recourse being had to opium alone; in obstinate hemorrhages, principally, this mixture will produce the hap-

piest effects. But if sulphate of soda prevents the congestion which opium sometimes produces, M. P. says that there is another article which corrects its narcotic, without diminishing its sedative effects ; this is the castor. The combination of opium and castor he considers very useful in cases of hysteria.—*Ibid.*

Combination of Nitre and Calomel.—M. Burdach states, in a recent German Journal, that the addition of nitrate of potash prevents calomel from producing salivation, the nitre causing its prompt expulsion by stool. This combination he also asserts to be a powerful derivative, and relieves the head, the chest, and the liver, more effectually than either of them will do separately. Certain diseases, as hydrocephalus, croup, &c. he adds, require large doses of calomel, and if this medicament is not eliminated from the system, it becomes a poison : the addition of nitre prevents this unfortunate result.—*Gazette Médicale.*

The Medical College of Ohio appears to be in a flourishing condition. We notice by a recently printed catalogue, that 150 gentlemen attended the medical courses there the past winter. Of these, Ohio sent 60 ; Kentucky, 32 ; Virginia, 13 ; Mississippi, 8 ; S. Carolina, 2 ; Indiana, 5 ; Pennsylvania, 6 ; Louisiana, 4 ; Missouri, 3 ; Tennessee, 11 ; Michigan, 1 ; Illinois, 2 ; New York, 1 ; Maryland, 1 ; Bermuda, 1. A Hospital and Lunatic Asylum, so indispensable to the medical student, are among the advantages offered by this western college.

The Spotted Fever is prevailing at New London, Connecticut.

Whole number of deaths in Boston for the week ending April 28, 40. Males, 16—Females, 24. Stillborn, 2.

Throat distemper, 3—lung fever, 3—scarlet fever, 6—unknown, 2—consumption, 6—measles, 4—pleurisy, 1—croup, 1—convulsions, 1—infantile, 1—jaundice, 1—burn, 1—dropsy, 3—intemperance, 3—cancer, 1—delirium tremens, 1—hooping cough, 1—ileus, 1.

ADVERTISEMENTS.

MEDICAL BOOKS.

A PRACTICAL Formulary of the Parisian Hospitals, exhibiting the prescriptions employed by the Physicians and Surgeons of those establishments ; with notices of the various Hospitals, and copious remarks upon the Medical Doctrines of the Practitioners who preside in them. By F. S. RATIER, M.D., Doctor in Medicine of the Faculty of Paris, and Corresponding Member of the Royal Medical Society of Bordeaux. Translated from the French, with Notes and Illustrations, by R. D. McLELLAN, M.D., Licentiate of the Royal College of Surgeons, London. Also,—Magendie's Formulary, for the preparation and employment of the New Medicines,—such as Strychnine, Emetine, etc.—Translated from the French, with an Appendix, containing the experience of the British Practitioners with many of the New Remedies. By JOSEPH HOULTON, F.L.S., Member of the Royal College of Surgeons, London ; Associate of the Medico-Botanical Society.

The American Editions of the above valuable works, in any quantity, as also the most popular of the medicines therein mentioned, are for sale at the store of the subscribers, who have for sale an extensive assortment of Surgical Instruments, Chemical Substances and Apparatus, at wholesale and retail, on satisfactory terms.

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Feb. 1. 6t.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

WEDNESDAY, MAY 9, 1832.

[NO. 13.]

DISSECTION VIEWED WITH REFERENCE TO THE RESURRECTION.

“ Si trapassamo per sozzo mistura
Dell' ombre e della proggia, à passi lenti,
Toccando un poco la vita futura.”

DANTE, *Inf. Cant. 6.*

A SURVEY of the world in its present condition displays a strange anomaly of tyranny and freedom, of ancient prejudice and novel wisdom. Men have not yet learned to despise the panoply of political governments ; and myriads are still ready to delight in the moving miseries, the useless cunning of military tactics. War, with its disastrous consequences, is still the glory of mankind ; and a multitude of particular evils is merged and forgotten in the cruel splendor of a day of slaughter. Life may still be sacrificed with impunity at the caprice of a single man ; and a king may hear of an army lost, and coldly confer the haughty favor of saying that his faithful subjects do their duty. But in every nation there are now arising men who profess the ways of peace, and acquire and diffuse, with active benevolence, the simple truths of science. The discovery and application of a solitary fact, conducive to human safety and human happiness, is a crown more lasting than that of diadems ; and the miner who is enabled to explore, with personal security, the perilous passage of his dungeon, is enlightened and protected by the efforts of a genius cultivated in the daylight of peace. Astronomy instructs us to contemplate the particles of a universe ; botany traces along the heather, glade, and brake, the varied pencil of a present Deity ; and anatomy develops the organs of life, and assists us in alleviating the multifarious afflictions of a world. Nevertheless, the same nation that would readily supply a thousand men with arms for slaying, slowly concedes the utility of anatomical dissection, and superstitiously conceals the remains of those very bodies whom it delights to immolate in the wanton exultation of conquest. The soldier is exalted for his prowess,—the anatomist is favored for his knowledge ; but still the noisome carnage of a field of battle is deemed more admirable than the arteries of a limb beautifully displayed by the knife of the careful dissector.

Death is more interesting than life. In the darkness of the grave we are taught to behold the brightness of futurity ; and in the passive structure of the corpse, we are led to discover the active mechanism of life in all its functions. The knowledge of anatomy is the knowledge of

nature, as demonstrable in the noblest work of the Creator, and as applicable to the noblest of his attributes—peace and good-will. In exploring the dead body, the anatomist is in the pursuit of truth, and is perpetually endeavoring to ascend from death to life, from the mere organism of matter to the laws which govern matter itself when alive. In pursuing these delightful speculations of intellect and reason, his labor is not vain ; he is learning to meet the casualties of life, to adjust the fractures of a limb, and to fortify the blessings of health. From the filthiness of death, he learns the excellence of life ; he unfolds the nice inter-dependence of different organs ; he traces throughout every part the slender rudiments of minute anatomy.

Such and so fair is the study of death, when we have once been admitted between the veil, and behold within the sanctuary the inmost fashion of the temple. But the temple stands in the obscurity of vulgar superstition.

The full blaze of christianity has not yet dispelled the mists that still linger over the last term of human existence. The resurrection of the dead is the source of error ; and the populace, ever more eager to preserve their latest remains against that awful moment, forget that the frailty of earth is not the perfection of heaven. The spoliation of disease and the decrepitude of age, the imbecility of infancy and the precarious virility of manhood, afford but feeble notions of a glorious and eternal vitality. Happiness could not be complete in a body perpetually liable to dissolution ; virtue could never be accomplished in a being whose passions are always opposing his reason. Eternity itself would be scarcely worthy of acceptance on the terms of mortality ; and the fleeting particles of matter, which are incessantly conforming and renewing our corporeal fabrics, at once reduce to an absurdity the notion of their eternal subsistence. Impossibilities can never be true. In reasoning upon this subject, human intellect is at fault ; and we are compelled to submit implicitly to the words of revelation, while learning the final destination of our bodies. Scripture has not left us doubtful in this “land of darkness and the shadow of death :” it has pierced beyond the grave ; it has unfolded the gates of that dread abyss ; it has suffered the light of heaven to gleam in grateful splendor on the world. We are assured, that our present bodies of flesh and blood form not a part of eternity ; that the body that is sown is not that body that shall be, and that our individual identity shall develop itself in a state of novel independence. A grain of wheat is the appropriate emblem of this subject : it is sown in coldness and moisture, its blade ascends, and its ear ripens into the color of gold under the opening aspect of the skies. We shall, indeed, possess substantiality, a visibility, and sensual perceptivity, but it shall be remote from terrestrial enjoyments, and above the conditions of matter. Nor shall the putrefaction of the corpse prevent this wonderful metamorphosis ; for when time shall have an end, the mountain and the sea, the costly mausoleum and the dingy vault, shall alike divulge their morsels of corruption in the clothing of immortality. “And I set me down in the midst of the valley which is full of bones, and they were very dry ; and there was a noise and a shaking, and the bones came together, bone to his bone : and the sinews and the flesh came upon them, and the skin

covered them above, and the breath came into them, and they lived and stood up an exceeding great army." The same event shall happen unto all men : to the savage who has been devoured by his fellows, and to the monarch who has been entombed in all the pomp of regal magnificence. The rite of sepulture will not confer the right of resurrection ; nor will the artificial preservation of the corpse (and the mummy even has a limited duration) make its security greater in heaven. The rite of burial is profitable only to social decency ; for if it be indispensably necessary to salvation, what is the lot of those who have died unavoidably without it ?—of Mungo Park, who perished in the wilds of Africa—of Cook, the navigator, whose bones have whitened on a foreign shore ?

What then shall we say for the corpse ? Shall not the anatomist dissect the body which must needs of itself melt into putrescence ? can he profit the living by neglecting to learn from the dead ? does he prevent the resurrection of a world by learning the nature of its dead before the whole is dissolved ? Nay, but anatomy is good, because it is humane ; and it is as worthy of the thoughts of ministers and the eyes of princes, as all the obscurity of politics and the captivating glitter of arms. The dead rise ; and the knife of the anatomist, while unlacing the body for the good of mankind, can *not* nullify the eternal fiat of the Creator.

These observations have been made, because it is vulgarly supposed that dissection is a sacrilege on popular worship. Dissection from mere wantonness is impiety ; dissection for knowledge is wisdom. If we are wise, we shall revere our intellects, and not our bodies ; we shall use, and not abuse, our limbs and animal functions while yet they are ours in life ; and, resting in hope, we shall have no fear concerning our deaths, whether our bodies become the dust of the grave, the food of maggots, or the subject of the anatomists ; or whether, by any chance medley in human affairs, they be lost and wasted in the waters of the ocean.

Medical Gazette.

ON THE BEST METHOD OF PRACTISING PERCUSSION.

THE following methods of percussing the chest are at present in use :—

1st. By striking the chest with the ends of the fingers. This is objectionable, on account of the pain inflicted by it in pleurisy and other similar affections, in which percussion is most likely to be tried. In the case of females also it cannot be expected that it would be permitted ; and although in hospitals, and in the instance of some private individuals, no obstruction may be offered, yet the method not being of universal application, it may be wanting at the crisis when the practitioner is in the utmost need of it.

2d. By percussing with the ends of the fingers of one hand on a finger of the other hand laid on the chest, in order to receive the blow. Undoubtedly by this the patient is saved from being hurt, but, in consequence of the difference of action between the right and left hand, it is hard to percuss a patient placed in a bed, without changing the angle at which the fingers strike, so much as to obscure very considerably the sound of fulness or emptiness, upon which our judgment of the case is to be formed.

3d. By percussing with the fingers on an ivory plate, as recommended by M. Piorry.

4th. By percussing with the fingers on a piece of Indian rubber. Both of these methods are objectionable, on account of the different angles at which the fingers of the operator strike, and the different sound thence produced ; but chiefly on account of the superficial sound produced by the stroke on those substances, and which is so loud as to obscure the sound of fulness or emptiness—the great desideratum to be attained.

The method of percussion adopted by Dr. Osborne, of Sir Patrick Dun's, although very simple, yet has been the result of many trials, made under the conviction that the methods now mentioned are all of them attended with uncertainty and difficulty to the young practitioner. He uses two pieces of sole leather of a circular form, and about an inch and a half in diameter, and percusses with the edge of one, perpendicularly, on the surface of the other. The accuracy with which these render the sound of fulness or emptiness is quite remarkable, and appears to be owing to the leather and integuments of the body having nearly the same density, and consequently rendering the same vibrations. The leather must be of a porous texture ; for if it has been hammered, the superficial sound takes place which is so objectionable in the ivory and Indian rubber. To strike with the edge of another circular piece is advantageous, both on account of the ease with which the stroke is made at the same angle, and also because the superficial sound is thus reduced to the least possible, inasmuch as the periphery of a circle can touch a right line only in a point. It is necessary, however, to observe, both with respect to this and any other means of *mediate* percussion, that it must never be performed till the substance to be percussed has been placed in the closest possible contact with the patient's skin. If this has not been done, then hollow sounds will be communicated from the intervening space, and the true sound of the interior will not be obtained.

Ibid.

INCONTINENCE OF URINE.

Of the Incontinence of Urine. From MR. CHARLES BELL's Treatise on the Diseases of the Urethra.

Is it beneath the dignity of the subject to inquire why children pass urine in bed ? Many a little urchin might be spared his flogging if the very simple cure was known. I remember to have seen a child brought into the hospital, where a cord tied round the penis, to spare the jade who attended him the trouble of raising the child from bed, had cut through the urethra. Boys have been made miserable, during what should be the happiest period of life, from this circumstance alone. I have known a man of twenty, kept from a public education owing to the same cause. And very lately a young gentleman confessed, that when visiting neighboring families in the country, he was under the necessity of sitting up all night, lest he should disgrace himself by passing urine in bed. If all this will not prove the importance of the matter, I can add a case more

professional and grave :—I have known a young man suffer a long and painful attendance on a surgeon, going through a course of medicine, with the use of bougies to remove this complaint, which he might have got rid of, as I shall show, by turning himself round. This occurrence never takes place, but when the boy is asleep upon his back; and the cure is a simple one: he is to accustom himself to sleep upon his face or side; the urine is not passed, nor is he excited to dream of making urine while he keeps this position.

The circumstance is unaccountable, until we reflect on the position of this master spring of the muscles of the bladder—the sensible spot a little behind and below the orifice of the bladder. When a person lies upon his belly, the urine gravitates towards the fundus; but when he lies on his back, it presses upon this sensible spot, and distends that part of the bladder which is towards the rectum. If, when the bladder is full, we press upon the lower part of the belly, we feel very distinctly that the pain excited is in this spot near the orifice of the bladder. If, in a morning when inclined to sleep, we are sensible of a similar pain, and a desire to make urine, by a change of posture, turning so as to lie on the belly, the sensation, and the necessity of rising, are removed. When a child wets the bed, it is in consequence of a dream, excited by the irritation of this sensible spot of the bladder, by the urine resting there, and stretching the bladder; it is cruel to chastise the child; and raising it frequently to make water does not mend the matter. But if the child be made to lie on the belly, or inclining to that position, with the cheek upon the pillow, the habit will be broken.

Boys are subject to a more serious incontinence, troubling them night and day, attended with inflammation and pain, and all the symptoms of stone in the bladder.

Stillicidium urinæ from want of action in the sphincter muscles, is generally owing to the same cause, an increased sensibility of this spot of the bladder.

ON DISEASES OF CHILDREN.

On the most important Points to which the Practitioner's Attention should be directed, while investigating the Diseases of Infancy and Childhood.

It is unquestionable that the diseases of infants and young children are by no means so well understood generally as those of adults; and this statement cannot excite surprise when it is remembered that medical men have been intrusted with their treatment during little more than half a century, previous to which period, old nurses and widows were almost universally considered the best advisers in the various ailments of early childhood. Ridiculous, however, as must appear, in this enlightened age, the general and implicit reliance of former times upon the curative resources of the authorities just alluded to, it has unfortunately tended, by depriving practitioners of the opportunities necessary for studying infantile diseases, very materially to retard the progress of this most important branch of the healing art; it being only since the comparatively recent transfer of parental confidence from the ignorant to the educated,

that the latter have seriously directed their attention to the disorders of children, or have any valuable works appeared upon the subject ; nor can these (a few excepted) bear comparison with the many sterling productions which have adorned the literature of general medicine.

Ability in distinguishing the morbid affections of infants can only be acquired, first, by the attentive study of infantile semeiology, and afterwards by clinical observation and experience ; for, although there is no real mystery hanging over them, as was anciently supposed, yet it is undeniable that they are difficult to be recognized with precision, unless the observer has enjoyed considerable experience himself, or frequent opportunities of witnessing the practice of others. The ordinary modes of detecting disease are here often inadmissible : reliance can alone be placed upon that accuracy of observation which enables the experienced physician at a glance to notice and interpret certain peculiarities of countenance, gesture, &c. ; from these deriving his only information as to the condition of his patient, since infants cannot indicate by words the seat or nature of their ailments. If, as Dr. Buchan well observes with respect to the recognition of disease in general, it is necessary to acquire the *tactus eruditus*, the *visus eruditus*, and the *auditus eruditus*, how indispensable must the possession of these qualities be to those who undertake the treatment of infantile diseases !

It is deeply to be regretted that there are no sufficient opportunities for acquiring clinical instruction in these maladies : great hospitals, it is well known, do not usually admit infants within their walls ; and the number that are brought to general dispensaries bear but a very small proportion to the total amount of patients admitted.

Formerly, the *impossibility* of understanding the diseases of early life was gravely asserted ; while of late years an opinion, equally erroneous, and almost as dangerous, has been held by some authors, who would have us believe that there is *no difficulty whatever* in recognising them ; because, they say, “ children speak a much more intelligible language by their actions, than adults do by their words.” But, even admitting for a moment the truth of this doctrine, its supporters have, unfortunately for the success of their argument, forgotten, that however expressive any language may be, the study of that language is absolutely necessary before it can be understood. All persons whose eyesight is unimpaired can see the letters of which an alphabet is composed, or the words contained in a book, yet they cannot comprehend the import of either until it has been explained by those competent to the task ; or, in other words, until they have learned *to read*. So is it with respect to the diseases of infants : their actions, gestures, cries, &c., are open to the observation of every one ; yet many of these will pass unnoticed, and all will be liable to be misappreciated or misunderstood, unless the attention has been previously directed to the subject, and their nature learned either by close observation, or being explained by others. This preliminary knowledge being attained, the observer (whoever he may be) is prepared to watch for the occurrence of even the most obscurely marked symptoms ; to recognise them when present, and to understand their import ; or, to resume the metaphor, he will be acquainted with *the morbid language of children*. If such be the difficulties attendant upon the detection of infantile diseases,

it will readily be believed that parents and others often fail to notice their commencement ; indeed, it is a fact, as unquestionable as it is lamentable, that from this cause the physician is very frequently summoned only to witness suffering beyond relief, and to detect irremediable disorganization of structure. That fatal malady, hydrocephalus, or water on the brain, as it is popularly termed, may be aptly adduced in illustration of this position, which disease being, at its commencement, of an insidious character, frequently creeps on unperceived until its most dangerous symptoms suddenly develope themselves. Medical advice is then sought, but too often proves unavailing, because the period which alone admitted of active treatment has been allowed to pass by unemployed ; and thus it is that the disease in question is regarded by many, even of the profession, as *incurable* ; whereas there can be no doubt, that at its commencement, when not dependent upon hereditary causes, it is, if properly treated, remediable in a majority of instances, and even in its most advanced stage some of the unfortunate children, who are the subjects of it, may still be restored to health by appropriate remedies perseveringly applied. But to return. Deplorable as are the circumstances to which reference has been made, it is still consolatory to know that they might be avoided, if the more prominent symptoms of disease in infants and children were more generally understood : not that it is for a moment to be supposed, that parents and others, by being familiar with them, would be qualified to take upon themselves the duties of the physician, but they would in consequence be alive to the first deviations from health in their offspring, or in those committed to their care,—would be aware when danger threatened, and thus be warned *in time* to avail themselves of the experience of their medical attendant.

The term “symptom” is employed in medical language to express some deviation from the natural state or appearance of the human body, which deviation is an indication of disease. A symptom is, therefore, an indication of disease, by which its presence is recognised in the system.

The arranging and art of detecting symptoms has been termed *semeiology*,* or *symptomatology*,† which may be divided into adult and infantile ; the latter treating solely of the symptoms occurring during infancy and childhood, the former comprehending such as are observed from the age of puberty until the latest period of life.

Disease, in infants and young children, is to be detected by an attentive consideration of their general appearance ; by their color and temperature ; by the position in which they place themselves, and by their cries and gestures ; by a minute examination of the individual parts of their bodies, and by a consideration of any peculiar conformations which may be found ; by ascertaining the existence or absence of pain ; by an examination into the state of the various functions, and of the condition of the different secretions and excretions.

Information upon all or most of these points can be procured by the personal observation of the medical attendant ; but there are other colla-

* From two Greek words, signifying a sign and a discourse.

† From two Greek words signifying a symptom and a discourse.

teral circumstances often requisite to be known, in order to determine his judgment, which can only be learned from others. Inquiries must, therefore, be made as to the age of the patient, the time which may have elapsed since the accession of illness, and the symptoms which then presented themselves. Information must also be sought, from which it may be determined whether the disease be dependent upon hereditary causes, and whether it had previously occurred to the patient.

London Gazette of Health.

THE USE OF THE TREPHINE IN EPILEPSY.

THE following interesting case was furnished the Transylvania Journal of Medicine by Professor Dudley, being the sixth of the sort which has occurred in his hands. The other five cases were related in his paper on "Injuries of the Head," published in the first number of that Journal. The success of this practice establishes two important principles in Surgery ;—1st. That the brain will bear severe mechanical irritation for a great length of time, without fatal disorganization ; and 2d. That the use of the trephine under such circumstances may restore the organ to its former healthy condition. The cases of Mr. Cline, first published, we believe, in the paper just referred to, bear only a slight resemblance to those of Prof. D., and are not meant by him, or by Sir Astley Cooper, who has since noticed them, to establish these principles so valuable in practice.

Mr. — received a gun-shot wound on the head in the month of March, 1832. On examination next day, his physician took from the wound a number of small bones, when, by reason of an injury done the dura mater, some brain escaped. So soon as the bones with the disorganized brain were removed, he was dressed, and at the expiration of two months he was thought to be well. The patient states, however, that a slight discharge continued to issue from the wound, and after some months epileptic convulsions, with a great derangement of the general health, ensued. It was then discovered, on examination, that the matter issued from the surface of the brain, and that the cranium appeared to be diseased. Under these circumstances he came to Lexington for assistance, his friend having furnished the preceding narrative.

On his arrival here his general aspect was that of an individual, who had suffered greatly from derangement of the cerebral and chylopoietic functions. A cicatrix of two and a half inches in length, on the central and posterior portion of the right parietal bone, pointed out the original injury.

On two points of the cicatrix were discovered small sinuous orifices, from whence was discharged an unhealthy pus. By the aid of a common probe diseased bone was detected.

The trephine was applied in the direction, and on one side of the original fracture. So soon as the segment of bone was removed by the trephine, isolated portions of bone were discovered beneath the dura mater, in a cavity of some dimensions occasioned by the absorption of the brain. Three of these, amounting in size to the thumb and finger

nails, were removed, together with a morbid growth from the surface of the wounded dura mater. Simple dressings were then applied, and renewed occasionally for the week, when the patient was discharged, free from all embarrassment, both in the corporeal and intellectual functions.

Communicated for the Boston Medical and Surgical Journal.

SCARLATINA.

MR. EDITOR,—At the present period, when the public mind appears to be so much excited upon the spread of Epidemic Diseases, perhaps a few remarks from this northern region may not be unacceptable. In this place, and I believe throughout our country, the past winter has seldom or never had a parallel for severity and duration. On the 25th of November last, I was able to pursue my usual round of professional business in my sleigh—and on the 3d of April, for the first time, I laid it by. During the more than four intermediate months the sleighing was good : a similar occurrence is not remembered by our oldest inhabitants.

During the early part of the winter, Pleuritis, Pneumonia and Influenza were very prevalent. Scarcely a house in town but one or more of its inmates were, during the period, forced to seek the advice of a Physician. Numerous cases terminated fatally, and many received a shock from which they can never recover. In the early part of February, the disease mentioned at the head of this article, first made its appearance within the circuit of my ride, and for the first time came under my observation. News from abroad had before reached this place of the prevalence of the disease, and the fatal havoc it was making with the lives of children. All were therefore dreading its approach, and anxiously watching the least symptom of its appearance, fully believing it fated to blast their fondest hopes,—the sure harbinger of death to some at least of those they held most dear in life.

A young child about 7 years of age was first attacked. She had attended school during the day, as usual, and on her return at night first entered her complaint of ill health. I was summoned in haste, and found my little patient on the bed, enveloped in warm blankets and drinking freely of a strong infusion of *red pepper* and vinegar, as hot as it could be taken. (This, it may be well to mention, *was* and *still is* a very popular remedy for this disease ; and often strongly and strangely persisted in, even by medical men themselves.) I immediately removed some of her super-incumbent burden, and ordered a suspension of Thompsonian quackery. The little sufferer complained of pain in the head—a soreness of the throat, and stiffness of the tongue. Her pulse beat about 140 in the minute, and rather feeble ; her skin was hot and dry, and she had constant inclination to vomit. I took from the arm about 3 xii. of blood ; her pulse diminished about one third in frequency, and rose proportionably in strength. I then gave about 5 grs. of Calomel and 10 of Ipecac. She puked three or four times, and sunk into a quiet sleep. I then left her, with directions to give a little infusion of Senna and Manna if no stools within two hours ;—after a free evacuation of the bowels, this to be followed by about 5 grs. of Pulv. Ipecac. Comp. Early the following

morning I again visited my patient, and found her free from pain—a slight soreness of the throat remained—several livid spots upon the fauces and tonsils, and the surface of her body completely covered with a scarlet efflorescence. Continue the use of Pulv. Ip. Comp. and Pulv. Ant. : obtain a full and free evacuation from the bowels daily :—use infusion of Sago, Balm, &c. sweetened with honey, for drink and as a gargle. In about ten days I had the pleasure of seeing this patient *well*. Since that time I have had about 50 cases of the same complaint, and I have at this time 12 or 14 under my immediate care. In *every* instance I have pursued nearly the same plan of treatment, varying only in reference to the age, sex and constitution of my patients, and I have lost but *one* of the number. In the instance that proved fatal, I was not applied to until the 3d day of the disease ; the child was about five years old, unusually fleshy, and had been highly stimulated with Cayenne, *warm sling*, &c. before I saw it. I have in no case seen fit to employ or recommend *stimulants*, though in many instances I have been solicited to on account of the great *apparent* debility.

Whether the success which has attended the means I have employed, has been owing to a correct opinion of the complaint, or to the mildness of the disease, I am unable to say ; I only state facts to elicit remarks from more able pens.

Is Scarlatina contagious ? Such is the prevalent opinion in this region among Physicians and others, but I have seen no reason for such belief. Or is it not dependent upon the state of the atmosphere, and, like Influenza, likely to subside when the air shall become warm and dry.*

Yours, E. LEFFINGWELL.

Thetford, Vt. April 27th, 1832.

. Communicated for the Boston Medical and Surgical Journal.

CONTAGION—THE PROPRIETY OF A POPULAR DISTINCTION QUESTIONED.

MR. EDITOR,—Can you or any of your correspondents inform me on what ground some physicians set up a distinction between diseases contagious by persons, and those contagious by merchandise. In the multiplied discussions with which our brethren in the four quarters of the globe have furnished us of late, respecting the old *black death*, or as it is now called the *Spasmodic Cholera*, I have noticed this distinction assumed by one side, and not questioned by the other. To me this is inexplicable, though perhaps the brighter lights of modern pathology have discovered it to the intellects of younger men. Where is the instance, among diseases long known to be communicable by contagion, of one which may be taken from the body of the sick, and is yet incapable of being excited by the clothing in which the patient is wrapt ? The Small-pox, the prince of contagious diseases, the mirror in which all the great and fixed laws of contagion may be seen most clearly, is not only taken at the bed-side, but communicated through time and space almost un-

* The Scarlet Fever was particularly rife in Boston, during the heats of the last summer.—ED.

limited, by the articles with which the sick man was surrounded, and which imbibed not the virus from his pock, but the atmosphere of his chamber. Still further, not only the smallpox, but the measles, and all universally acknowledged diseases of this character, may be carried from family to family in the clothing of the physician in attendance. If long exposed to fresh air, the diseased atmosphere, or in other words the contagion contained in these cloths, would be either so diluted or so far supplanted by another, as to render them incapable of inducing disease in the unprotected. But let the physician remain an hour closely with a variolous or rubeolous patient, and then let his coat be boxed up tight and sent to a distant shore, and there opened, and no doubt can remain what will be the consequence. How much more certainly would the body-linen of the patients themselves convey the miasm, in this way, to a distant part of the same or another country. These cloths are, in fact, merchandise. They may be torn into rags, and so converted into actual goods for exportation.

The more I indulge in these reflections, Mr. Editor, the more I am induced to think that a disease that may be communicated by a sick man to his medical attendant, his nurse, or friend, by means of an atmosphere generated by his person, may also be carried in clothing (*i. e.* merchandise) to an individual at a distance; and I doubt if there is an example or can be one, in the whole history of medicine, that justifies the distinction between contagion from person to person, and contagion through merchandise. There is no disease, I believe, which is communicable in the one way, that is not also in the other.

Respectfully, Yours,

N. H. April 16th, 1832.

SENEX.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, MAY 9, 1832.

SPOTTED FEVER AT NEW LONDON.

WE noticed last week that a malignant asthenia, commonly denominated spotted fever, or typhus syncopalis, had made its appearance in New London, Connecticut. The New London Gazette of April 25th states, that "there may have been as many as eighty or a hundred cases, in all grades of the complaint. There is no pretence that more than eight persons have died of the epidemic, and seven of these were decidedly broken down constitutions, either from great age or other causes." The veteran practitioner, Dr. North, who resides in that city, appears personally to have given a tone to the treatment, and his Treatise on Spotted Fever, and Dr. Miner's Essay on Typhus Syncopalis, are, we understand, the principal guides in the practice, which has been adopted with great success. The following extract from a letter dated New London, Connecticut, April 25, 1832, comprises the principal information which has been received.

"I have seen, either as attending or consulting physician, a large proportion of the cases. The sweating process, by means of billets of wood, heated bricks quenched in water, and bottles of hot water, has been universally adopted, in all serious cases, at the attack. Solid opium, Fowler's solution, tinct. opii., hot diluted alcohol in some form, essential oils, warm herb teas, &c., have been the internal medicines. The sweating process operates like a charm, upon all our patients. They convalesce in two or three, or in six or eight days, at the most. Not a single person has been bled, although in some cases there has been a *quasi* pleurisy, and in others a *quasi* inflammation of the bowels, like cholera; or at any rate, there was purging and pain. Not a single emetic or cathartic, (with one or two exceptions,) or any cooling medicine, has been *intentionally* given, at the attack, by any physician. Hopkins's Cordial Elixir (a compound tincture of rhubarb), has been generally used to move the bowels, when absolutely needed. In one case, however, where there was a *quasi* croup, I tried the Russian emetic, of common salt, or hot brine; it operated both ways, and did no good or hurt. The patient got well, however. I believe the annals of medicine cannot produce another instance of such harmony of sentiment, both among physicians and the people, in a time of pestilence, as now exists in New London in regard to our malignant asthenia."

The writer takes it for granted, as is the fact, that his friend is fully acquainted with the disease, and therefore does not state symptoms, only he remarks that they coincide very precisely with those described by Dr. North, in the epidemic that prevailed in the county of Litchfield, which forms the principal subject of the treatise published by that gentleman, at New York, in 1811.

The frankness with which a malignant disease is acknowledged, in the Gazette, to exist in New London, affords a happy and striking contrast to the system of concealment and mystery, which too often characterizes the conduct of the inhabitants of many cities, while a severe epidemic is prevailing; and the unanimity of the physicians, as well as the general deportment of the citizens, under this afflicting visitation, is truly laudable.

It is particularly desirable that all practical information respecting this disease, should be brought before the profession in strong relief at the present time. We gain not a new fact respecting cholera—we take not a new retrospect of its history, that does not add confirmation to the opinion already expressed, of its analogy to the spotted fever of New England: every step in our investigation, strengthens the belief that the same bold course of treatment which has controlled the latter, would exert a power scarcely less remarkable over the former. Let us then familiarize ourselves with all past experience respecting the one, that we may be the better prepared to meet and master the other. Without prejudice, and

without partiality, we have attentively watched all that has transpired in other countries respecting the treatment of the cholera—the apathy of one nation, the unsettling panic of another ; the perseverance of one in modes of treatment that arrest no symptom of the disease, and the extravagance of another in wild and unpromising experiments with new remedies and modes of management, based on new and various views of its pathology ; but nothing has yet come to our knowledge that seems so rational in principle, or so promising in practice, as the treatment we recommend to the notice and the knowledge of the Faculty. The means of such knowledge are ample, and particularly rich in the accounts of spotted fever by Drs. North, Miner, and Page, that have been already referred to in this and previous numbers.

ACTION OF COLD ON THE SYSTEM.

THE effect of cold, as a morbid agent, however exposed to daily observation, is still involved in considerable obscurity. It is matter of daily remark that diseases occur after the exposure of the body to this agent, which it is difficult to believe would have taken place had the exposure been prevented. The circumstances which render cold deleterious must be referred partly to the mode of its application, and partly to the state of the system. Of the latter we may hold it certain, that the body is more susceptible of cold when it has long been confined to a regulated atmosphere ; that debility from disease increases the susceptibility, though this is liable to some exceptions ; that cold is borne less well by children than by adults, in the night than in the day, when asleep than when awake. There is, also, independent of these circumstances, a remarkable difference in the susceptibility of different persons. With regard to the agent itself, the circumstances of most importance relate to the degree and the duration of the application of cold. A very intense cold, provided it does not produce freezing, will be better borne, as regards any subsequent effect, than a moderate cold of long continuance. The most severe instances of disease from the effects of cold, which we are called to observe, are those of persons exposed for many hours to a moderate cold without exercise, or with insufficient exercise. The danger is heightened by the presence of wind, and by the addition of fatigue to exposure. But independently of the difficulty of calculating the effect of this agent, arising out of the multiplicity of circumstances to be considered, we are nearly ignorant of the channel through which these effects are produced. Does cold act on the system through the lungs, or the skin, or by some channel independent of both these ? The tendency of cold to produce affections of the chest, would naturally suggest that the inspiration of an atmosphere at a very low temperature has an influence on the delicate organ employed in this function, and that pneumonia in some instances at least is directly produced in this manner.

The wonderful effect produced in our pulmonary complaints by change of climate, and by breathing constantly an atmosphere at an uniform temperature, cannot well be resolved entirely into effects produced on the skin or the general system, however salutary these effects, but must in part be owing to a more direct influence. It is not easy, in regard to the human race, to put this matter to the test of direct experiment; but we happen to have before us some results of experiments on animals, made by the distinguished physiologist mentioned in our last number, to which, though by no means conclusive in their application to our own species, we will now allude, though a detailed account of them is contained in a former volume of this Journal.

The observation was made by M. Flourens, that a young bird exposed to intense and continued cold, will almost certainly be seized with a severe affection of the chest; that he becomes motionless, breathes with difficulty, refuses food, and dies at the end of some hours of acute pneumonia. In this case, on examination of the organs, the lungs appear of a deep red color, and gorged with blood.

If, on the contrary, the cold increases but slowly and acts at intervals, the bird is seized with chronic pulmonary inflammation; and in this case the lungs, red and gorged with blood at some points, are found at others in a state of suppuration.

The comparison of these different effects, seemed to suggest a means of investigating the causes of one of the severest diseases to which humanity is subject, namely, phthisis pulmonalis. The object was to determine, 1. If in certain given circumstances, cold alone suffices to produce this malady. 2. If in the same circumstances, it is sufficient to avoid cold, in order to avoid the disease. 3. If the disease, having commenced under the influence of cold, can be cured by the sole agency of a warm atmosphere.

In this view, having taken several chickens of the same brood, he placed a certain number in a spot constantly maintained at a mild temperature: not one of this number was seized with pulmonary phthisis.

A second portion was left exposed to all the variations of temperature of the atmosphere; almost all these died of phthisis, after having gone through all the gradations incident to this disorder.

Finally, a third part having been exposed, like the last, to all the changes of the atmosphere, and having shown like them symptoms of phthisis, were transferred to a mild and uniform temperature. Most of these recovered their strength by degrees, and after a few months were entirely cured.

The next point was to compare the lungs of the fowls which had recovered, with those of the part which had been destroyed by phthisis. In the last, the larynx, trachea and bronchiæ, were full of a purulent matter of dirty grey color and fetid odor, studded with an infinity of black specks; the tissue of the lung was gorged with blood, softened and almost putrid.

Many of its cells were found full of pus ; others presented black points, like those with which the purulent matter was marked, and at many of these points was found a small, hard, crepitating body of white color, and of horny or osseous consistence. In the chickens which had recovered, portions of the lungs presented vesicles sunk and depressed, where were still seen traces of the black points they had contained, during the continuance of the disease.

These experiments, then, go to prove, 1. That it is not only on the organization as a whole that cold acts, but that it exerts a specific action on the texture of the lungs. 2. That it acts on this tissue in two modes ; in one producing acute pneumonia, in the other a chronic inflammation, which is phthisis pulmonalis. 3. That a moderate and constant warmth prevents the invasion of phthisis, and even when this disease has already commenced, is capable of arresting its progress.

A STEEL FORK EXTRACTED FROM THE BACK.

DR. BURNS, of the British navy, has published a remarkable and almost incredible history. The patient complained of slight pain, and soreness, and tumor between the scapula and the spine, but close to the base of the former. Supposing it to be a boil, it was treated with poultices several days and opened. In the abscess a small steel rod was felt by the probe, but it could not be extracted by the forceps. The poultices were often repeated, and the steel moveable in most directions ; but, on attempting to extract it, it still offered great resistance. By means of the knife, it was at length extracted. "The foreign body," says the reporter, "having become very little loosened, and now causing more pain on being moved, I made a deep incision of about three inches in length over its course upwards, using it as a director, when it was easily extracted, and found to be a common kitchen fork, broken off close to its handle, and with one of its *two* prongs wanting about an inch of its point ; it was blackened, and in some degree rusted. It seemed to have been retained by a bridle of muscular fibres embracing its shoulders, for it was immediately liberated when this part was divided by the knife."

This patient was about 23 years of age. He had no recollection of ever having been injured in the back, and, as well as his parents and surgeons, was wholly unable to imagine how or when the fork gained admission within his cutaneous envelop.

NEW METHOD OF DETECTING OPIUM.

A CHEMIST in England has discovered a new method of detecting opium, which promises to be of avail in legal medicine. It is the best, so far as we can judge without actual experiment, which has yet been proposed, and should an opportunity offer to put it to the test, we shall be happy to

record the result. The method is this :—To the solution suspected to contain opium or meconic acid, add a few drops of a solution of the muriate of gold. If meconic acid alone exists, it will be indicated by the formation of a black, inky precipitate ; but if there be narcotine present, or morphine in combination with the meconic acid, as there is in opium, then, on adding the solution of gold, a fawn-colored precipitate will be produced, which by the subsequent addition of a few drops of caustic potass, will gradually deepen in color, until it becomes very nearly black. Twenty drops of laudanum (which contain about two thirds of a grain of opium) have been discovered, when diluted with a pint of water, by the above described method of detection.

Analysis of the Sulphur Spring at Nashville.—The water of this spring was first analyzed by the late Professor Bowen. It has since been examined by other chemists, and is found to contain the following ingredients.

Gases : 1. *Carbonic Acid*. 2. *Sulphuretted Hydrogen*.—Solid ingredients : 1. *Muriate of Soda* (abundant). 2. *Muriate of Magnesia*. 3. *Muriate of Lime*. 4. *Carbonate of Lime*. 5. *Sulphate of Lime*. 6. *Sulphate of Magnesia*. In composition it corresponds very closely with the famous Harrowgate springs of England, the most abundant substance in which is muriate of soda.

The use of this water has been beneficial in dyspepsia, liver complaints, and other chronic visceral diseases.—*Trans. Journ. of Med.*

Epilepsy Cured by Foxglove.—Some cases are related in the *Lancet*, in which epilepsy was cured by the use of digitalis in infusion.

Rival to the "Alkaline Drops" of Dr. Granville.—The Exeter News-Letter states, that it is a remarkable fact that not an individual in Europe has been attacked by cholera, who has been in the habit of subscribing and paying for a newspaper !

Subscribers to this Journal are requested to forward us accounts, from time to time, of such epidemic or other diseases as may come under their notice. We shall also be happy to insert communications from them on any other subjects interesting to the medical practitioner. Several subscribers are in the habit, when they forward the pay for the Journal, of filling the envelop with such medical intelligence, and we should be pleased if the plan were more generally adopted. Contributors are entitled to six copies of the numbers containing their communications.

Whole number of deaths in Boston for the week ending May 4, 27. Males, 10—Females, 17.

Scarlet fever, 6—disorder of the brain, 1—consumption, 4—measles, 4—inflammatory fever, 1—intemperance, 1—throat distemper, 2—lung fever, 1—inflammation on the lungs, 2—dropsy on the brain, 3—dyspepsia, 1—inflammation on the spine, 1.

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THE SCURVY.

From Lectures on the Theory and Practice of Medicine, Delivered at the London University,—By DR. ELLIOTSON.

Etymology.—THE word scurvy is said to be derived from some German words, *scharfpocke*, meaning sharp or violent pock, which were corrupted to *sharbock*; or from *shorf-pocke*, meaning scab or scurf-pock. However this may be, it is from the word *scharbock*, latinized and corrupted, that *scorbutus* is derived, and a very barbarous word it is. From this we are said to have our English term *scurvy*; but I should rather think it came directly from the Danish word *scurv*; and this name *scurvy* is used by the vulgar in a very indefinite sense, being applied by them to any ill-looking chronic cutaneous disease, but in our profession it is restricted to a particular affection.

Symptoms.—This disease is characterized by a bloated surface, and petechiæ, vibices, and ecchymoses. By petechiæ are meant minute dark red or livid points, little larger than the point of a pin; spots still larger than these are called vibices; and when instead of spots we have patches, the word ecchymosis is employed. They all relate to the same appearance, but denote a difference in extent. With respect to color, these points, specks or patches, are of a dark red or purple hue, but may contain all the shades which we see in bruises. The surface, therefore, in this disease is bloated, and upon it are seen points, specks, and patches, of a red or purple color, and of all the shades which we see in common bruises. A very remarkable circumstance, however, also attends the disease, and that is, the hardness of many parts, but particularly of the thighs. If you examine the thigh of an individual laboring under scurvy, though it be only in the slightest degree, I believe you will find it generally, but more especially under the hams, hard; and in severe cases I have seen it as hard as a board. I have not seen many cases of the disease, but in all of them I have noticed this circumstance. The gums are particularly affected; they are spongy and bleed, and either they or the breath, or both, send forth a very offensive smell. Such is the disease of the gums that the teeth very frequently fall out, and in addition to their being spongy and bleeding, they become enlarged and livid.

This is a disease of great debility, and the spirits are always very much

depressed. So great is the debility, that people very frequently faint from time to time, and the pulse is found to be weak, and the surface of the body cold. Very often, ulcers form upon the surface, and discharge a thin and fœtid bloody fluid, and at last a coagulum of blood is formed. The gums are in precisely the same predicament. The blood which is discharged and coagulates upon the ulcer is with great difficulty separated from it; it adheres to the ulcer and the flesh which is beneath, and, when you remove such a coagulum, the flesh is found to be, like the gums, soft and spongy. If you remove the coagulum, it is instantly renewed; a fresh oozing of blood takes place, a second coagulum supplies the place of the first, and at length a fungus will sprout forth—a soft, flaccid, dark-looking fungus, which sprouts as fast as you take it away, and which is called by sailors *bullock's liver*; it may attain an enormous size. If this fungus be repressed, a gangrenous tendency is frequently observed; the leg will swell, and become more spotted and painful. You of course know that when a fungus sprouts forth from the dura mater after a fracture of the skull, it is very dangerous to repress it; if the part be compressed, very frequently dangerous symptoms ensue. So it is found injurious in scurvy to repress this *bullock's liver*, because the pressure induces a gangrenous tendency. The very slightest bruise inflicted upon a patient laboring under scurvy to any degree, will generally produce an ulcer of this description.

There are, however, some very remarkable circumstances respecting this disease. Old wounds, and even fractures, have a tendency to recur under it. Wherever an ulcer has existed, wherever a solution of continuity in soft parts has taken place previously, although the parts have been well cicatrized, yet under this disease the wound often opens again. Nor is this occurrence confined to soft parts, but even bones themselves, as I just now stated, which were formerly fractured and repaired, become again disunited, showing that the callus of bones is not so strong as the original parts of the body, and that it suffers when the rest of the bones do not.

There is also another very singular circumstance connected with this disease, and that is the occurrence of nyctalopia, or night blindness. Patients laboring under scurvy frequently become blind, either altogether or in part, when night comes on.

Causes.—Now the great causes of this disease appear to be the want of fresh animal and fresh vegetable food. It is on this account that formerly the disease was very common at sea, for at one period sailors were supplied with nothing but salt provision. So badly were ships formerly provided for, and so bad was the general management, that in the year 1726, when Admiral Hozier sailed to the West Indies with seven ships, he buried his ship's company twice, and then died himself of a broken heart. Deaths to the amount of eight or ten a-day took place formerly in a moderate ship's company. The bodies were sown up in hammocks and washed about the deck for want of sufficient strength on the part of survivors to throw them overboard. I may mention that Lord Anson, in the year 1741, lost one half of his crew by scurvy in six months: 961 men sailed with him, only 335 of whom were alive at the end of the year; and at the end of the second year, 71 only were fit

for the least duty—not to say duty, but for the *least* duty. Sir Gilbert Blane says that the disease appears in about six or seven weeks from the beginning of sea-victualing.

You cannot have a better description of the dreadful mismanagement formerly, in regard to the navy, than you will find in Roderic Random. Smollett, both in that and in his *History of England*, gives an account of the armament which, about the same time that Lord Anson's expedition took place, was sent out against Carthagea. The description is from his own observation. He says the provisions consisted of *putrid salt beef*, to which the sailors gave the name of *Irish horse*, (I suppose the contractors lived in Ireland, and it looked like horse-flesh,) *salt pork and musty bread*. The salt pork came from New England, and was neither fish nor flesh, but savored of both. The bread came from the same country, and the biscuit, like a piece of clock-work, moved by its own internal impulse, occasioned by myriads of insects that dwelt within it. The butter was served out by the gill, and was exactly like train-oil thickened with salt; and though there was water enough to allow each man half-a-gallon daily for six months, yet each had only a purser's quart a-day in the torrid zone, where a gallon would have been hardly enough to repair the waste of perspiration. You cannot wonder, therefore, that scurvy formerly prevailed to this dreadful amount.

Former prevalence in London.—However, the disease prevailed likewise on shore, and scurvy at one period was one of the most fatal diseases in London, so that even in the 17th century—as late as that—there were from 50 to 90 deaths from it annually, and in the year of the plague there were not fewer than 105 deaths. These frightful occurrences took place regularly, and not during a particular year. The same reason, however, existed for the prevalence of scurvy in London which produced it at sea; for the food of the Londoners was then salt beef and pork, with a little veal. The lower orders had very little else in the time of Henry VIII. The fact was, that pasture land only was then common, and very little was cultivated. Animals could feed, of course, only during the summer and autumn; hay being a later improvement, it was impossible to feed them longer than that period, and they were therefore killed as the winter came on, and salted, and thus a store of provisions was laid up until the next spring. Garden stuff, too, was extremely scarce in those days, so that Catherine of Arragon, one of the numerous wives of Henry VIII. was actually obliged, in the beginning of the sixteenth century, to send to the Netherlands for a gardener to raise her a salad, so ignorant were the gardeners of this country of what is now considered within the reach of everybody. Cabbages and other garden stuff were not cultivated in England before the reign of Henry VIII. Government, too, at that period, seemed to encourage the consumption of this meat; for the price of meat was fixed by law at one-twentieth of what it now is, whereas wheat was fixed at only one-tenth of its present price. Care was thus taken to have a good supply of animal food, but vegetable food was comparatively neglected. I may mention that in 1700 a cabbage cost three-pence, which in 1760 cost only one halfpenny; such was the advance of art and the increase of knowledge, that so great a difference occurred in the price of a cabbage at those two periods. Other greens, too, at

first, were proportionately dear ; and garden stuff was only used at that time on Sundays, and as a great dainty, when people had company.

The use of salt or putrid meat appeared to be the cause of scurvy. But it was not the salt ; for salt, though taken in the greatest excess, will not occasion scurvy, and scurvy will take place where no salt is used—nay, persons will have scurvy who eat no meat at all ; and therefore it is not this, but the want of other food—the want of fresh animal and fresh vegetable food—which induces the disease. I have seen several, not a large number, but several cases of scurvy, in individuals who had eaten no meat at all ; they had been deprived of meat of every description, and it arose in them from the want of food. You will find in the *Transactions of the College of Physicians*, vol. ii. two cases mentioned by Sir Francis Milman, of women that had the scurvy in the country, but who had eaten no meat whatever, having lived on tea and bread after being accustomed to better food.

Sea and land scurvy, I believe, are exactly the same ; and I may state, that Mr. Musgrave, who published a work on the Gout in 1703, mentions that this disease was common in Somersetshire ; so that you observe it prevailed at sea, in large towns, and in the country.

There can be no doubt that many circumstances conspire to the occurrence of this disease. Cold and the want of exercise unquestionably encourage it ; for sailors are observed to suffer in cold latitudes, when they are placed under the same circumstances, with the exception of latitude, in which they escape it in warm climates : this fact strikingly illustrates the effect of cold. Then, as to the want of exercise, Captain Cook says that the people in Kamschatka, who are habituated to hard labor, never have the scurvy, while the Russian and Cossac in garrison, who live in the greatest indolence, are subject to it. Sir Gilbert Blane says that the prime seamen only were attacked with scurvy, who were exempted from pumping. He instances the case of a particular ship's crew, and says, that once the prime seamen suffered the disease, whereas those who were obliged to work hard at the pump from time to time, the ship having proved leaky, escaped. Moisture also is said to have a considerable effect—I presume, especially when united with cold. La Perouse attributes the prevention of scurvy in his crew very much to the vessel being kept dry by fumigation, and braziers of hot coals. Captain Parry ascribes the first case of scurvy, in one of his expeditions, to moisture. It was observed, when scurvy prevailed in London a few years ago, at the Penitentiary at Milbank, that those persons employed in the kitchen always escaped ; perhaps, however, they got better food than the rest, or more of it, but at any rate they had a warmer place. Captain King told Dr. Macmichael, as he stated in a paper read last year at the College of Physicians, that, in a voyage round the south coast of America, no case of scurvy was apparent, the crew having had plenty of lemon juice, although there was a remarkably cold and moist state of the atmosphere. I do not believe that moisture will occasion it alone, but moisture certainly aggravates the effects of cold in this disease, as it does in all others.

The difference between ships' crews now and formerly is very striking. While the crew of Lord Anson suffered so much in a voyage round the

world, that of Captain Cook, in a voyage subsequently performed, suffered nothing. The difference arose from this circumstance : Captain Cook had a good supply of portable soup, sour crout, and fresh meat, and he kept his men in regular exercise, at the same time taking care that extreme cleanliness and ventilation should be observed. In addition to this they were only out about three weeks on their longest cruise, although absent so long.

Such measures as these will generally prevent scurvy, if there be no fresh provision on board, provided there is a supply of lemon juice ; and sometimes, in spite of the neglect of all these particulars, lemon juice alone will prevent it.

Treatment.—The great remedy, however, for scurvy is fresh food, animal and vegetable ; farinaceous vegetable substances are insufficient ; and when that cannot be procured, then I believe lemon juice will be found the most efficacious medicine. The effects of lemon juice on the disease are speedy and wonderful ; so wonderful are they, that the compiler of Lord Anson's voyage says, after describing the disease, and the horrors which took place from its ravages, that the cure of such a complaint seems impossible by any remedy, or any management, that can be employed. Scurvy was formerly set down, without hesitation, as an incurable disease—not only as a disease incurable *then*, but as being so formidable in its nature that it *never* would be cured ; and yet in almost every case we can now cure it with the utmost facility. It is not only lemon juice that will cure it, but all the hesperidæi—the lime, Seville and unripe China oranges. Malt and sour crout are thought to have a similar property. The custom, I believe, is to give three tablespoonfuls every morning to each man, for the purpose of keeping the disease away. Lemon juice is preserved by mixing one-tenth of spirit with it. One ounce of lemon juice, with one ounce and a half of sugar, is the present navy allowance ; and it is said that scurvy rarely occurs now in the longest voyage. Citric acid is thought to be inferior to lemon juice. During the nine years previous to this supply, the average number of sick sent to the hospitals was one man in three and nine-tenths of the whole navy ; and in the succeeding nine years it was only one in eight and four-tenths. The juice is also said to improve the general health. I may mention, as a good illustration of the power of lemon juice, that the Suffolk left England in April 1794, and had no communication with land for twenty weeks and a day, and yet all the time she had only fifteen sick, and those slightly, and soon cured by an augmentation of the first allowance of two-thirds of an ounce ; and at her arrival not one had the scurvy. In 1800, the channel fleet, consisting of 24 ships of the line, besides smaller vessels, had no fresh provisions for 16 weeks, but plenty of lemon juice, and not a single instance of scurvy occurred ; whereas in 1780, the channel fleet could not keep sea beyond ten weeks, and was worn out with scurvy and fever ; and 2500 men were sent into port with the scurvy. We read in Purchas's Pilgrim, that Commodore Lancashire sailed from England with three other ships, for the Cape of Good Hope, on the 2d of April, and arrived at Saldanha Bay on the 1st of August, the Commodore's own ship being in perfect health, from the administration of three tablespoonfuls of lemon juice every morning to each of his men ; whereas

the other ships were so sickly as to be unmanageable for want of hands, and the Commodore was obliged to send men on board, to take in their sails and hoist out their boats.

This disease, of course, occurred in ancient times. It was known in the Roman army, in Germany, and also in the impiously denominated "Holy Wars ;" but it was first particularly noticed in the crew of Vasco di Gama in 1497. You will find it mentioned by Pliny, as occurring in the Roman army under the command of Germanicus. But with respect to the remedy, its discovery appears to have been left for modern times, but still not recent times, as you will find it mentioned as far back as 200 years ago. There is a curious fact connected with it, and one which is very instructive, as teaching us not to despise anything without good reason. It is said that when the London College of Physicians was applied to by Government, for a cure for scurvy, they advised vinegar, which has very little power in the affection ; and that a Fellow of the College, who wrote on the disease in 1753, never adverts to lemon juice at all in his Treatise, and yet that, two hundred years ago, it was mentioned in Woodall's " Surgeon Mate, or Military and Domestic Medicine,"—a work published in 1636, " by John Woodall, Master in Surgery ;" and he ends his praise of it by saying that he dare not write how good a sauce it was with meat, lest the chief in the cabin should waste it to save vinegar. It is said even to have been mentioned still earlier, in Purchas's Pilgrim, published in 1600. Dr. Lind, of Haslar Hospital, revived the knowledge of it, more than one hundred years afterwards. He stated its peculiar powers, in the third edition of his work on the Diseases of Seamen, in 1772, but even then it was not brought generally into use, and the navy actually suffered most frightfully from scurvy till 1795. Although the remedy was mentioned two hundred years ago, in one book, and again in a well-known surgical work in 1636, yet the navy suffered till 1795, when a good supply of it was ordered by government, when Earl Spencer, the father of the present Chancellor of the Exchequer, was at the head of the Admiralty, on the representations of Dr. Blair and Sir Gilbert Blane, who were commissioners of the board of sick and wounded seamen. In less than eighteen months there was not a case of scurvy in Haslar Hospital. In 1780, there had not been fewer than 1457 ; in 1806, there was but 1 ; and in 1807, but 1.

So great is the effect of this article, that you will find the following passage in Sir W. Herschel's work, published in Dr. Lardner's Cyclopædia, on the cultivation of the physical sciences. He says, " At present the scurvy is almost completely eradicated in the navy ; partly, no doubt, from an increased and increasing attention to general cleanliness, comfort, and diet, but mainly from the constant use of a simple and palatable beverage—the acid of lemon, served out in daily rations. If (he adds) the gratitude of mankind be allowed on all hands to be the just meed of the philosophic physician, to whose discernment in seizing, and perseverance in forcing it on public notice, we owe the great safeguard of infantile life, it ought not to be denied to those whose skill and discrimination have thus strengthened the sinews of our most powerful arm, and obliterated one of the darkest features in one of the most glorious of all professions."

The scurvy is now prevented by great attention to cleanliness—by

giving sailors as wholesome food as possible—by attention to exercise and cheerfulness, and by a regular supply of lemon juice. In spite of all this, however, sporadic cases still occur ; but, in general, that is all. I have had myself several cases of this disease in London, and some of them were in persons who had never been at sea, who had eaten no salt meat, but had been deprived of food nearly altogether. Others were sailors, who came on shore laboring under the disease ; for in merchantmen there is continually the greatest neglect. I had one patient, a few months ago, who had been sixteen weeks at sea without any medical man on board (that, I suppose, is unavoidable in small ships) ; who had had nothing but the hardest salt beef, without a particle of anything else except biscuit, during the whole voyage. He was, as might be expected, laboring under scurvy to a great extent ; and he said that several of the crew had died. I am not sure that the lemon juice, which I gave these patients as a matter of course, did them any good, because they were allowed fresh meat and greens every day, with porter, every article of good diet, and this was quite sufficient, I am sure, to cure the disease. I gave them lemon juice in addition, because we have such authority for its employment. However, some persons now begin to say that the lemon juice does no good—that the benefit entirely arises from the other means that are employed, and that the neutral salts, particularly nitre, answer a better purpose. I dare not say, however, that authority so accumulated and so immense as it is, respecting the powers of lemon juice, is at all to be disputed. I certainly cannot but think, till we have further facts, that it is our duty in every case to supply lemon juice, or similar things if it cannot be obtained, in the hope of doing away with the ill effects which the want of fresh food occasions.

I may mention, also, that, in regard to local applications, it is found that lemon juice is one of the best when there is a scorbutic ulcer. I believe a slice of lemon laid upon it is one of the best applications that can be employed, as Pierre Lebat is said to mention, in his Voyage to the Antilles.

Now this is a disease which I should say is a chemical disease, if any one be so. In one sense the constitution is not at all in fault ; all the fluids and all the solids appear to be changed, but you have only to give a different chemical state to the body, and the disease is cured. You need give nothing which acts by a specific operation—no drug, I mean, which acts as a medicine—but employ fresh articles of diet, and you remedy the depraved constitution of the whole mass of solids and fluids. I have, therefore, mentioned this disease before I came to any of those which are clearly seated in particular parts. I am not aware that this attacks any one part in particular ; it seems to be a cachectic state of the whole frame ; and if any disease be an instance of universal disease, I should certainly say it was scurvy.

There is an affection very similar to scurvy in some respects, which has been arranged and described by Willan, among cutaneous diseases, and which is called *purpura*. Some are of opinion that this is the same as scurvy ; but I cannot think so, for reasons which I will state when speaking of diseases of the skin.

HEREDITARY HÆMORRHAGIC TENDENCY.

A Case of Hereditary Hæmorrhagic Tendency.—By JAMES N. HUGHES, M. D. of Simpsonville, Kentucky.

IN the IV. Vol. of this Journal,* page 518, I gave an account of a case of Hereditary Hæmorrhagic Tendency, ascertained to be universal among the male members of the family in which it exists ; the females being, at the same time, as universally exempt from it. Since the publication of this case I have met with one of the same character, in another and entirely different family, a succinct history of which I propose now to give, simply for the purpose of calling the attention of the profession more particularly to this singular disease, for such it should undoubtedly be considered.

On visiting the house of a respectable farmer of this neighborhood, my attention was directed to the case of a youth ten or twelve years old, which appeared to be rheumatic, and which was so pronounced. The correctness of my opinion was called in question by an old lady present, who was herself a member of the family, and intimately acquainted with the history of the case. On further inquiry I ascertained it to be one of hereditary origin, the rheumatism being only the sequel of another affection to which the boy had been subject from infancy, viz. hæmorrhage. Learning that this disease was common in every branch of the N. family, of which that of my friend Mr. P. was one, I inquired particularly concerning it, when the following facts were communicated :

1st. That spitting, vomiting and purging of blood ; bloody urine ; bleeding at the nose ; extravasations of blood among the muscles and integuments of the body generally, especially of the extremities, producing dark discolorations and swelling, attended frequently, after a few days' continuance, with obtuse pain and stiffness, and copious and obstinate hæmorrhage from very inconsiderable incisions, on whatever part of the body they are made, have been exceedingly common among the male members of the connection.

2d. That the hæmorrhage, whenever it has manifested itself, has been invariably attended with rheumatisms to a greater or less extent.

3d. That the slightest sprains or contusions have generally been followed by rheumatism of the part.

4th. That the majority of the males, who have arrived at old age, have been much disabled by rheumatism.

5th. That on the approach of old age, the tendency to hæmorrhage has been less manifest.

6th. That a considerable number of the males have died in infancy and childhood.

7th. That deaths immediately from the loss of blood have been frequent ; several resulting from the employment of the lancet, some from accidental wounds, others from various internal hæmorrhages, and two of the number simply from the application of blisters,—“*the blisters*,” in the language of my informant, “*drawing blood instead of water.*”

* The Transylvania Journal of Medicine, from which we extract this interesting history.—ED.

8th. That, of the two diseases, hæmorrhage and rheumatism, the former has always maintained the priority.

9th. That the females, though in no instance sufferers from this predisposition, have, nevertheless, invariably transmitted it to their offspring.

And 10th. That the predisposition in question can be satisfactorily traced as far back as the fourth and fifth generation.

We present the above as facts, upon the authority of several intelligent and highly reputable members of the family to which they relate ; a personal acquaintance with whom, enables us to repose the utmost confidence in their communications.

By comparing this case with that previously published, they will be seen to exhibit a striking parallel in every important particular. In both, the tendency to hæmorrhage seems to depend mainly, if not entirely, upon a morbid condition of the capillary system ; there being in neither, with the exception noticed in the account given of the first case, any morbid manifestations on the part of the larger blood vessels. The cause of this remarkable diathesis is, to us, shrouded in darkness ; and it will perhaps appear hereafter, that post mortem examinations alone are capable of revealing its true character. When it was first presented to us, we regarded it as one of those rare anomalies in physiology, occasionally met with by physicians. But since our limited opportunities for observation have brought under our notice two distinctly marked cases, we are induced to suspect that it is not so unfrequent an occurrence as it was at first supposed to be ; and although it has not yet been thoroughly investigated, it has not entirely escaped the attention of those who have been extensively engaged in the practice of medicine. If, as suggested, the affection spoken of be not so uncommon as was supposed on first consideration, it is a question meriting much attention, whether it is susceptible of mitigation or relief ? It is true that most hereditary maladies have proved extremely difficult of management. But on the other hand, it is not less true that even here the efforts of the profession have contributed materially to mitigate the sufferings of afflicted humanity.

ERUPTIVE DISEASE FROM THE USE OF CUBEBS.

Cases of an Eruptive Disease arising from the Use of Cubebs. By
JOHN NORTH, F.L.S.

THE reputation of a medical practitioner in the estimation of the public as frequently depends upon the knowledge he possesses of trifling facts that are connected with his profession, as upon his intimate acquaintance with the nature and treatment of the most formidable maladies. A circumstance recently fell under my observation which illustrates the truth of this assertion : Two footmen, in a family of distinction, were suddenly attacked with a severe eruptive disease, resembling Urticaria, but differing in some respects from that complaint. The symptoms of general disturbance ran rather high, and the family became alarmed : their usual medical attendant was consulted, and, with more sincerity than judgment, he confessed that "he could not possibly conceive what the disease was, or from what cause it had arisen." Another practitioner happened to be

in attendance upon one of the members of the family, and his attention was attracted by the appearance of the men servants : he had several times seen such an eruptive disease produced by the use of cubebs, and, upon being informed that a mystery hung over the nature and cause of the complaint, he at once suggested that cubebs had been taken, and that the local and general symptoms would soon disappear. The fact was precisely as he supposed. The men had gonorrhœa ; had dosed themselves freely with cubebs, and from the use of this medicine the eruptive disease had arisen. They were placed under the care of the surgeon who had shown a knowledge of the nature of their complaint, and under the use of mild aperients, with a few days' confinement to the house, they were entirely relieved. The confidence of the family in their former medical attendant was destroyed, and the second practitioner has subsequently retained their friendship.

This anecdote is mentioned as an apology for relating the following cases, which happened in my own practice. I am aware that to many surgeons the fact is known, that cubebs, and *sometimes* the balsam of copaiva, produces the same effects I am about to describe ; but students and junior practitioners may long remain ignorant of such occasional effects of these medicines, as I find, upon reference to works which are generally consulted, that no mention is made of them.

Captain P—, after trying various remedies for the cure of an obstinate yet trifling gleet, took, of his own accord, large doses of cubebs three times a day. On the fourth day from the commencement of the remedy, he complained of great restlessness, flushing of the face, sickness and headache. On the fifth, he was covered with an eruption from head to foot, which was accompanied by a high degree of sympathetic fever. The peculiar appearances of the eruption I will attempt to describe in the next case, which was more severe, and attended by more strongly marked characters. Captain P— recovered in a few days, by the assistance of mild aperients, salines, and confinement to the house : he was, of course, desired to discontinue the cubebs. Upon a subsequent occasion, he again ventured to try the remedy, but he gave it up after taking one dose of it, in consequence of feeling the same general symptoms of restlessness, &c. which had preceded the former attack.

Madame T— had long labored under severe leucorrhœa, and, from motives of delicacy, had neglected to consult any medical practitioner. She was recommended, by a friend, to try the effects of powder of cubebs, in doses of a small teaspoonful twice a day. After the first two doses she felt feverish, with a tingling and heat over the whole surface of the body ; she had rather severe headache, and a very disagreeable sensation of fulness in the eyes ; the hands and feet felt hot and numbed. On the third day, a “flush of red” broke over the whole of the body ; and on the fourth, a decided eruption appeared. The cubebs was now discontinued, six doses having been taken. On the fifth day my attendance was required : her appearance was now peculiar, and rather formidable : her features were so completely changed as to leave no trace of their natural expression ; the face was excessively swollen ; eyes turgid and watery ; lips puffed, dry, and shining ; coryza ; hands much swollen, and so stiff that the fingers could not be bent ; respiration hurried and difficult ;

pulse small, and varying from 120 to 130 ; skin burning hot ; intense thirst ; tongue very white ; constant nausea, and occasional vomiting. She was covered with an eruption from head to foot, which in some parts could not have been distinguished from *Urticaria febrilis*, while in others it had more the appearance of *Lichen* in its papular stage, but with much more intense inflammation around the base of the papulæ than is commonly seen in that disease. A fortnight elapsed before this lady completely recovered. The remedies employed consisted of purgatives, salines, and mild anodynes at bedtime.

Two or three other cases of the same kind, but milder in degree, have fallen under my own care, and several have been mentioned to me by other practitioners.

The following case was published in the *Archives Générales* for Nov. 1831. A young man was admitted into La Pitié, under M. Velpeau, with gonorrhœa, which had existed for two months. After a few days, he was ordered a mixture containing cubebæ, copaiva, and magnesia, in the proportions of two drachms of copaiva to four of cubebæ. He took this mixture daily, and on the sixth day he was attacked with violent itching and burning over the head and neck. In the morning, his face was covered with dark-red patches, and in the course of a few hours this appearance of the skin, as well as the itching and sensation of burning, had extended over the chest and arms. The following day, the abdomen was attacked in the same manner. On the third day, the efflorescence that had at first appeared became pale, but the legs and feet now presented a similar appearance. The case might easily have been taken for measles, if the cutaneous symptoms only had been regarded, but there was none of the characteristic constitutional disturbance that attends that disease : the general health was, in fact, undisturbed. In the course of a few days the eruption entirely disappeared ; and if any doubt had existed as to its cause, it was completely removed by the following circumstance : about three weeks after his recovery, the patient repeated a dose of the medicine, which he had accidentally kept ; the eruption appeared on the following morning, and remained for two or three days.

London Medical and Physical Journal.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, MAY 16, 1832.

THE SIGNS OF DEATH.

It is among those merciful provisions by which our passage to that bourne whence no traveller returns is rendered less gloomy and terrific, that the approach of death rarely makes itself known to the dying man for any considerable period before its arrival. A man affected with chronic disease, as phthisis, for instance, will have occasional misgivings as to its eventual termination, and will find himself forced to admit a consciousness of wasted vigor and a failing frame. But besides that this is occasional

only, and that the general train of feeling in these cases inclines more to hope than to apprehension, this general doubt as to the termination of one's disease is very different from a distinct presentiment of the approach of death ; and we are disposed to think that the latter seldom occurs until within a few hours of the event itself. Sometimes too this presentiment is deceptive, and a patient may feel quite sure that he is going to die, when in fact he is not in danger. It is, on these and many other accounts, extremely desirable for the practitioner to be fully acquainted with the symptoms of approaching death, and to be able to warn the friends, and if necessary the patient himself, in such decisive terms, that the event when it does arrive may never be unexpected. This however is not always found an easy task. Death will now and then continue to elude the sagacity of the Doctor as well as his patient ; and there are few practitioners but can recal instances of patients whom they had left without anticipating any immediate danger, but who have dropped away within a few hours. To guard practitioners as far as possible from these occurrences, which are both painful and mortifying, many authors have attempted to assign the symptoms of death, and to lay down rules by which an attentive observer may detect its approach, at a considerable interval of time. The ancients, particularly attentive to every circumstance connected with diagnosis, did not overlook this topic ; and we know of no author who can be consulted with more advantage on the subject under consideration than the venerable Celsus. In the few remarks which we shall make at this time, we shall avail ourselves of his instructions ; and if occasion offers shall refer to his authority.

Among the circumstances to be regarded in discerning the approach of death, are the state of the pulse, the countenance, respiration, muscular motion, the surface, the mind, and the senses. As respects the pulse, the criterion which it affords is highly important and useful, provided its indications be carefully noted ; but where no other circumstance has led the physician to suspect the approach of danger, this may, from that very circumstance, happen to be overlooked. The change which takes place in the pulse is however less marked than that which happens to some other of the functions. It may suddenly lose its regularity and become intermittent ; or it may simply become very rapid, feeble and fluttering ; and in either case it will require a nice tact to distinguish by this means the approach of death from a state of extreme debility unattended with immediate danger. The act of dying is accompanied by a peculiar state of the pulse, which a little practice renders it easy to recognize.

The change of the countenance is one of the most striking indications of death, and that one which is most frequently noticed by friends. When this observation has been made by others, however, it is but small merit in the practitioner to confirm it. If on the contrary he is the first to observe the change, the circumstance may do some credit to his skill and

sagacity. The general effect of the changes which take place in the countenance, can be better observed than described ; but some of the particular changes which go to produce it may well be noticed. Celsus mentions among these the sharpness of the nose and the collapse of the temples, together producing what we term distortion of the countenance ; the tenseness of the skin of the forehead, the dark or pallid hue of the face. The eyes become dim and glassy, the red vessels on their surface lose their blood, and the mucus secreted by the conjunctival surface adheres to the minor angles. Sleeping with partially closed eyelids, though common to this state, with others, and therefore not diagnostic, also deserves mention, as likewise an unusual whiteness of the lids, extending to the lips and nose.

The muscular strength affords another important criterion for determining the approach of death ; and the careful observation of this comes very clearly within the province of the medical man. The failure of muscular strength is principally obvious in a want of control over the sphincter muscles, so that the feces pass away involuntarily, and in the failure of the power to support the body, which therefore slides gradually toward the extremity of the bed. This effect however is not entirely accounted for on the simple supposition of a failure of muscular power, since a corpse placed in the same manner would retain its place. It is certain, as a general fact, that when great debility is present, the flexor counteract the extensor muscles, so that the limbs are flexed upon the trunk and the head thrown forward upon the trunk ; and in some of the positions produced by this preponderance, gravity no doubt will act to carry the body in the direction mentioned. Among other evidences of the failure of muscular power, may be mentioned the spasmodic action of the muscles, producing what is commonly called *subsultus tendinum*. The failure of deglutition, which, however, generally occurs at a later period, is only another instance of the same general fact.

With respect to the respiration, few remarks can be made which will be equally applicable to the fatal termination of all varieties of disease. The most remarkable affection of the respiratory organs is hiccup, which is among the most familiar and obvious prognostics. The mucous crepitus within the windpipe, so familiarly known as rattles, is one of the most certain indications of death ; but in croup and similar affections, it is possible for the character of the respiration to change to this, without the difference in sound being sufficient to strike the observer without considerable attention ; and this may prove in practice a diagnosis of some importance.

The state of the cutaneous surface affords one of the best indications of the approach of death, because one least likely to be simulated by a different state of things. An icy coldness of the extremities, proceeding towards the trunk, is one of the surest signs of dissolution, and one which a diligent observer will not easily mistake. If, however, the attention is not habitually directed to the state of the surface, it may happen that even

this circumstance may be disregarded and overlooked. A cold sweat, though not peculiar to the state in which death is approaching, is sometimes a symptom of this state. The paleness of the general surface, apart from that of the countenance already noticed, will sometimes also attract the attention.

Among the modes in which the mind and senses are affected by the approach of death, may be mentioned delirium, which generally, though not always, is the precursor of dissolution. This is made manifest by incoherent expressions, by picking at the bedcloths, grinding the teeth, muttering, &c. The senses of sight and hearing are frequently impaired, and sometimes wholly lost, for some time before death.

Among other signs of death, not precisely falling under the foregoing heads, may be mentioned jactitation, which forms in children one of the best diagnostics; obstinate diarrhœa with very fœtid discharges, which occur in particular descriptions of cases; the sudden drying up of an habitual discharge from any external inflamed surface, and the disappearance of pain without the removal of its cause.

We shall conclude this imperfect sketch of the signs of approaching death, in the words of the illustrious author we have so often quoted; language which though somewhat humbling to the pride of science, must be confessed to be as applicable to the present state of the medical art as to that of the period at which it was written.

I am aware that the question may be asked me—if there are certain signs of approaching death, how happens it that patients deserted by their physicians sometimes recover, and that instances have occurred of those who revived even in their way to the grave. In fact, the illustrious Democritus was so persuaded of the difficulty of determining these points, that he would neither assign the symptoms of approaching death, nor the signs of its having actually occurred. To such remarks, I will not answer, that these ambiguous marks deceive only the unskilful; that the sagacious Asclepiades meeting a funeral, discovered that the apparent corpse was still living; and that the errors referred to belong not to the art, but its professors. I will take a more modest ground; confessing that the medical art is conjectural; and that from the nature of conjecture, what proves true generally, must sometimes fail. If, then, a symptom deceives us in one case of a thousand, while it holds good in the rest, this need not destroy our confidence. This uncertainty is by no means confined to the particular diagnosis in question, but extends to every branch of the healing art. Sometimes our expectation deceives us, and a patient dies of whose safety we felt entirely secure; and sometimes the remedy administered aggravates the disease. Nor can human skill, in so great a variety of cases, hope always to decide rightly; but we must confide in that treatment which is found successful in the majority of cases; and the signs which determine our prognosis, if fallacious in themselves, should only be the more diligently and carefully studied.

FRENCH MEDICAL JOURNAL.

It were too arduous a task to enumerate all the circumstances of a local, physical, moral, and political character, which render the city of Paris the richest field in Europe, if not in the world, for medical and surgical observation. Most of the productions of this field, that reach this country, come in a mask impenetrable to the majority of the profession, and we have long thought it desirable that some means should be adopted, not only to remove this mask, but also to furnish the American faculty with a more abundant supply. The Hospitals of Paris present cases of almost every description, and many that are interesting and instructive, and calculated to enlighten the dark parts of medical science. The many societies there existing, and the spirit with which this science is cultivated, not only in them, but also by their able members, in their individual capacity, all lead to the belief that an American Edition of the Journal published under the direction of Beclard, Cloquet, Dupuytren, Laennec, Orfila, Richerand, and other worthy associates of such men, must be full of important intelligence to the practitioner. Such a translation is proposed by Dr. Lindsley, of Washington, and we trust his subscription will be such as to enable him to carry his projected plan into execution.

The *Archives Générales de Médecine* is published monthly at Paris, and each number contains 140 pages. Each will be translated, and republished at Washington, as soon as possible after it is received ; but as there are occasionally articles of a local character, not particularly interesting to the American physician, it is proposed to omit these altogether, or to give an abridgement of them, so as to compress the work into 80 or 90 pages per month, with an Appendix of Domestic Intelligence, at \$5 a year.

We have given these details, because the undertaking is of novel character, and, we think, will well repay the encouragement of the profession.

TREATISE ON FUEL.

ANOTHER proposed work, to which we would ask the attention of all, is a treatise on peat, and the different species of coal and wood generally used for fuel. The subject is one in which all are personally interested, and few but are desirous of eliciting, from those who possess it, any information which may affect their comfort or economy. Among the multitude of popular lectures which have, for the last three or four winters, been given daily or weekly, in almost every city and village in New England, we have heard of none on the subject of *fuel* ; yet how few subjects are capable of being illustrated with so much true practical usefulness, as this. The proposed Essay, by Dr. North, of New London, will be published as soon as his subscriptions will justify the undertaking, and the low price, 75 cents, will place it within the reach of a wide circle of readers.

The Publishers of this Journal will be happy to aid in bringing out this work, by receiving subscribers for it, and sending their names to Dr. North.—Dr. N. is the author of a work on Physiology, which we have heard of, but never seen.

THE MEASLES.

THIS disease has been particularly prevalent of late in this city and vicinity. There have been many severe cases, and some that have terminated fatally; but generally, the cases have been mild. We introduce the subject for the purpose of remarking, that an unusually large number of adults have been attacked; few of these indeed have escaped, who have been at all exposed to the infection, and some have passed well through the disease who had supposed themselves protected by having had it in early life. The first attack, in these instances, was probably sine catarrho.

The Bene Plant.—We have often seen this plant recommended for dysentery, diarrhœa and common cholera morbus. The Greenfield Gazette states that Dr. Stone of that town has raised it for several years, and employs it in his practice. He esteems it as one of the best remedies known in the healing art, for the diseases named. In the Southern States the blacks almost universally raise it, as they are often attacked with bowel complaints, and it was calculated that last year the lives of several hundred children in Baltimore and vicinity were saved by it. A leaf or two of it are stirred in a tumbler of water for a few minutes, till the water becomes thick, when the patient drinks it. It communicates no unpleasant taste to the water, and is not therefore so likely to be refused by the tender sufferer. The seed can be obtained at the New England Seed Store in this City.

Chronic Enlargement of the Tonsils, and Relaxation of the Uvula.—These parts frequently become enlarged from repeated attacks of inflammation, and the uvula elongated. Now before resorting to excision, the plan which I adopt in these cases with the most successful results, is the application of the nitrate of silver, in the form of solution. Take a probang, the sponge of which has been wetted with a saturated solution of the nitrate of silver, and keeping down the tongue with a spoon, or an ivory knife, touch the relaxed parts with this solution. Repeat the application every other or third morning, and after a few applications the worst cases usually mend.—*Dr. Elliotson.*

Whole number of deaths in Boston for the week ending May 11, 35. Males, 20—Females, 15. Measles, 12—inflammation in the bowels, 1—consumption, 8—old age, 1—scarlet fever, 4—bilious fever, 1—apoplexy, 2—lung fever, 2—throat distemper, 1—inflammation on the brain, 1—accidental, 1—intemperance, 1.

ADVERTISEMENTS.

NEW MEDICAL WORK.

CARTER & HENDEE have this day received, An Account of some of the most important Diseases peculiar to Women. By ROBERT GOOCH, M.D., Author of a Practical Compendium of Midwifery. In 1 vol. 8vo.

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[NO. 15.]

MORS EPIDEMICA.

On Mors Epidemica, or Malignant Asthenia.—Communicated by the Author for publication in the Boston Medical and Surgical Journal.

THIS functionally diseased state of human organization should have a place assigned it in Nosology.

It may be sufficiently precise, at present, to state that epidemic death, to which millions become victims, is occasioned by great atmospherical vicissitudes, by a vitiated atmosphere, and somewhat rarely by infection or contagion, or by all these causes combined. The symptoms of this mortal state are so rapid as to terminate life in 3, 6, 12, 24, or 48 hours, unless arrested by suitable means.

The subsequent lucid description of this unhappy condition, with trifling alterations, is from the report of Sir William Crichton, physician in ordinary to the Emperor of Russia, in regard to the progress of Epidemic Death, or Cholera Morbus in Russia, until the end of the year 1830.

“General uneasiness, violent headache and giddiness, great languor, oppression at the chest, pain in the pit of the stomach and at the sides, a very weak pulse and frequent vomitings, first of undigested food and then of a watery fluid mixed with phlegm, which may have a rice color, frequent purging, severe pains which make the patient *roll about* and *scream*, cessation or very scanty secretion of urine, excessive thirst, cramp in the legs and by degrees reaching the body, voice feeble and hoarse, the eyes dull or muddy and sunk in their orbits, the features changed, resembling somewhat those of a corpse, coldness, contraction or want of plumpness, a bluish tinge of the extremities, a coldness over the whole body, the lips and tongue become blue and cold, a clammy perspiration. The vomiting and purging, when they do occur, contribute to the exhaustion of the patient.

“The spasms gradually become greater, attacking in succession the most vital parts. The pulse gradually ceases; the respiration becomes scarcely perceptible, and the patient after having suffered a most cruel martyrdom *dies quietly*, having a few moments’ ease just before his end. The duration of this unhappy malady is, generally speaking, from twenty-four to forty-eight hours.”

Neither the above nor any other excellent description of a set of symptoms can be expected to embrace the history of every case, because the temperament of persons varies very much, as likewise do the remote and exciting causes of epidemics, as regards intensity. Many persons, in epidemic death, or malignant asthenia, become, from torpor, either delirious or comatose; some have dark-colored petechiæ. The vital elements also operate in a morbid manner, in very different organs, in diversified epidemics.

Another abstract view of *Mors Epidemica* may be given, as it appears in Spotted Fever. The exciting causes having operated, the patient, being somewhat unwell, is suddenly attacked with coldness. This sensation begins at the stomach, quickly extends to almost every part of the system, and is attended with shivering and a general sensation of a chill.* Pungent pain of the head, back, stomach and other parts, is connected with this chill. There soon follows a nameless, dreadful, death-like sensation of the stomach, occurring at intervals, which alarms the patient exceedingly, and often a vomiting of its natural, or unvitiated contents. The respiration is often short, laborious or sighing. The pulse when perceptible is always very feeble, whether fluttering, slow, or somewhat quick. The tongue is more or less bloodless and cold; and when moved, it fumbles about with difficulty; it is sometimes whitish and coated. The throat often becomes aphthous, after being very sore, and so paralytic, or torpid, as to impede deglutition and injure the taste. There is soon a very great diminution of muscular energy, occasioning trembling, feeble movements and a tendency to faintness, spasms, or even a corpse-like rigidity of the limbs. The eyes have a wild, vacant, unanimated, muddy appearance. The tears trickle down the cheeks without consciousness. The eyes sometimes appear somewhat red from a stagnation of blood in their fine vessels. Torpor, coma, or delirium in many forms, and a derangement of the urinary organs, are generally made manifest. There is often a marbled and purplish and cold skin, which sometimes occasions the blood to ooze under the cuticle, forming purplish spots of various sizes and shapes. The bowels are not often diseased, although purging or costiveness sometimes occurs. A warm or wholesome temperature of the whole body is never apparent. There is always the most excruciating general distress. Such dreadful symptoms few can withstand more than twenty-four or forty-eight hours, unless a reaction of the system is artificially produced. When this is done, sweating generally ensues and brings relief. But depletion is injurious.

The sequel to such symptoms, as regards the two epidemics alluded to, if the patient withstands such intense sufferings until a reaction of the organization can take place, is a typhoid state, or speedy convalescence. This also is the case in many other epidemics. This state may sometimes be attended with deep-seated turgescence in important viscera, or typhoid inflammation, and the patient still be in great danger, or he may be in imminent danger from mere exhaustion. Such turgescence may oftener occur in some epidemics than in others. It seldom occurs in

* An inability in our organization to generate, or procure a sufficiency of caloric, is always fraught with imminent danger, and it may be the cause of many symptoms which follow a chill, in some fevers. This fact should teach promptness in action, in such cases.

true Spotted Fever. Morbid anatomy has taught too much error, in regard to common inflammation, as being the cause of very sudden death, in many cases. Such inflammation, unless actual mortification or sphacelus is the result, does not kill immediately. But functional disease often dissipates speedily the fine vital elements of our organization, including the sentient spirit. This state is death. These elements have been often called the vital powers.*

Mors Epidemica is more to be dreaded than any other species of death, because greater terror and more unhappiness is thus occasioned, and in timid individuals a predisposition exists to this disease. It likewise occasions injurious excitements in political governments. Family governments, with proper instruction, can do more to lessen the evils of pestilence than any other: Even the energetic monarchical government cannot control the aerial causes of tempest, mors epidemica, or even contagion, very effectually, unless that of smallpox be an exception. Neither governments nor physicians have the same power over the health or actions of people, that a farmer has over that of his beasts. The latter, but not the former, can execute the best plans for the preservation of his living property.

In such a dreadful malady, as has been had in review, the medicinal treatment, on the one hand, consists in the very vigorous and timely use of both internal and external stimulation, or heating and anodyne agents; and on the other hand, venesection and other depleting remedies should be avoided; so also anything that should excite alarm in the patient. It is feared that these last depressing agents, have been highly injurious to thousands! Venesection should never be resorted to unless by the highly skilful. It may be proper to say that Mors Sporadica, or Sporadic Death, as it occurs to unacclimated Caucasians or the whites in tropical climates, under the name of Yellow Fever, is not meant to be included in our remark in regard to venesection, &c. In full habits it may be proper. There may be other exceptions to the very general sweating plan, which is in review. Great pain alone, and likewise much fear, are both capable of exhausting the fine vital elements of our organization, including the sentient spirit, in a sudden manner, or in a very few hours.†

Powerful anodynes and hope are both needed in such cases. Caloric and oxygen must be supplied to the patient, if deficient. These are known to be vital elements. No great nicety is needed in the use of these last agents, when the patient is in such deplorable circumstances, because when sweating ensues relief is obtained.

The reason why the above somewhat general treatment is suitable for *an infinity of dreadful cases*, is founded on the following fact, viz. the vital vigor of our whole organization, while in health, is in suitable proportion to the quantity of well oxygenized blood, and of that which is sufficiently warm, which quickly circulates through it. A stagnation and thickening of this noble fluid, for want of caloric, oxygen and other suitable aerial elements, and likewise its own highly important vital spirit, is, therefore, to be carefully guarded against or counteracted by suitable

* What these vital powers were, has not been honestly taught until lately.

† See North's Essay on Physiology.

means. The latter power is what we may possess as well as the former, and thereby save many lives. Another reason may be given, viz. the best medical experience, in every age and country, has proved, in the writer's deliberate opinion, that stimulant and supporting agents are far more successful than depletion, in counteracting mors epidemica, having no reference whatever in our remarks to the treatment which may be proper for the sequela which may ensue. It may perhaps be an axiom in medicine, that when a sudden and dangerous escape of the fine vital antiseptic elements of our organization is in operation, stimulant and supporting remedies are more or less indicated. The non-professional reader is informed, that these vital antiseptic elements are caloric, oxygen, electricity, light, and the vital molecules, or warm exciting spirit of the blood. The use of cordial and external diaphoretic remedies in that particular state of our organization which has been, in this essay, called mors epidemica, should be regarded as a discovery made, and finished, which is nearly if not quite as useful as vaccination and many other discoveries which have been made in medicine. The warm bath is not the best mode of using external heat. Such a discovery should be extensively promulgated, not because sudden epidemical death can always be prevented by it, but only sometimes, or very frequently.

The horror excited, when such multitudes are thus suddenly carried off, is probably one reason why more die at the commencement of an epidemic than afterwards. This fact should teach discretion. Whenever the Eastern Cholera, the Western Spotted Fever, the Plague, the Yellow Fever, or any other highly malignant epidemic, occurs, in any place, such a state of symptoms as are fraught with imminent and sudden danger should be carefully noticed, and the proper remedies promptly and vigorously applied, at the attack, not waiting too long for the tardy arrival of a physician. Many lives, that are now lost, might without doubt have been thus saved. The after treatment, if the patient survives this dreadful attack, should be directed by a skillful physician, and be done according to the nature of the sequela which may ensue. It may be worth noticing, that the Cholera, or Mort de Chien, has not always been confined to the Eastern Continent. It was witnessed many years ago by British naval surgeons, in South America, and in the West Indies. Neither, in the opinion of the writer, is spotted fever confined solely to North America. It has existed, under a different name, even lately in England.

On the one hand, avoiding fear, pestilential spots of air, when their location may be known, and atmospheric vicissitudes, as much as possible, and also infection and contagion; and on the other hand, making use of good solid and liquid food or that which may be antiseptic, general temperance in regard to bodily and mental exercise, and in regard to caloric, air or oxygen, and most of our passions, constitute the only preventive means which are known to avoid pestilence. More can be done, however, by these resources, than many are aware.

Housekeepers generally know that the sweating process, if not excessive, is by no means dangerous. If small mistakes are made, the physician, when he arrives, can generally remedy the evil.—Promptness,

in action, in epidemic death, or in malignant asthenia, is as needful as it is in asphyxia, or when persons are dying from wounded arteries. This opinion has not, hitherto, been properly appreciated or attended to by physicians. Nor can it be expected to be by the ignorant. Every family should have some good printed account of mors epidemica, that they may know how to act when pestilence, like a thief in the night, may enter their dwellings. Particular information with regard to particular modes of conducting the sweating process, can be had, having reference to the spotted fever, in North's treatise on Spotted Fever. The professional reader will likewise consult the works of Drs. Nathan Strong, jr. Henry Fish, Benjamin Vaughan, Samuel B. Woodward, Thomas Miner, and many others. An excellent account in regard to Mort de Chien, or Cholera, was published 25 years ago in Edinburgh, by Charles Curtis, Surgeon. He used, vigorously, heating and sweating agents, to both surfaces of the body, i. e. to the stomach and skin. His success was great.* Dr. North has given an account of that heroine in medicine, Mrs. Hurlbut, by whom the sweating process was revived, after it had been almost banished from among physicians by the too great influence of the immortal Sydenham and his disciples, and by morbid anatomy.

The complaints called Cholera Morbus, Spotted Fever, and likewise Yellow Fever, have all of them very deceptive names. The vague term Mors Epidemica, and the more precise term Malignant Asthenia, are therefore used by the writer as a substitute or in a far more general sense. In illustration of this position, the reader is reminded that what in Asia is called Cholera, is not always attended with vomiting and purging. Neither is the spotted fever of America very generally attended with petechiæ or purplish spots; although it may sometimes be so. Nor is yellow fever always attended with a yellow skin.

Some persons may think that it may not be true that such a state of the organization, as has been named Mors Epidemica or Malignant Asthenia, and now partially described, occurs at the attack, in such diversified epidemics as the Cholera of India, the Spotted Fever of America, the sweating sickness of England, the Plague, the Cynanche Maligna, Yellow Fever, malignant intermittents, and other suddenly dangerous fevers. It is admitted, that the diversity of human temperament must somewhat vary the effects which result from remote aerial causes. These causes may vary also. Still it is thought that such an abstract view, as has been taken, may benefit, in times of sickness, non-professional readers—and some professional ones. The plan that has been recommended is not a dangerous one. Sudden death, which sometimes happens from over mental exertions, concussions, &c. may be prevented by the same exciting means, and not by depletion, too often had recourse to. That great solace of life, hope, should be made to move in eddies, in every direction, in times of great terror from Cholera or other dreadful sickness. Suitable instruction in regard to health may annoy the public much less than pestilential evils; and medical men ought to aim to be truth teachers, or shining lights, in society; and they should so teach,

* The knowledge of Dr. Curtis's rare work was obtained after the above was mostly written.

as not to offend, or too much annoy, the organs of self-esteem in others.

TISSOT.

PRUSSIC ACID IN HOOPING COUGH.

Observations on the Use of the Hydrocyanic or Prussic Acid in Pertussis or Hooping Cough. By EDWIN P. ATLEE, M. D. of Philadelphia.

THE memoir of Dr. Magendie, of Paris, presented to the Academy of Sciences of that city, November, 1817, on the use of prussic acid in certain diseases, afterwards translated and published in the Journal of the Royal Institution of London, gave origin to numerous experiments, in different parts of Europe, in phthisis pulmonalis, irritable coughs and nervous diseases. It was not, however, until the appearance of his second memoir,* published at Paris, 1819, containing additional researches, physiological and clinical, upon the employment of this powerful agent, that the profession in Europe and America were induced to place much reliance upon its curative influence.

About the time these researches were being made in Europe, the writer of these "observations" was a student of medicine in the University of Pennsylvania, and as additional facts were presented to the professional world through the journals here and abroad, he determined to apply the acid in cases of hooping cough when a suitable opportunity presented. Statements, however, shortly appeared, giving accounts of so many fatal results from its administration under the superintendence of judicious practitioners, that some of his elder and experienced brethren of this city deprecated its use altogether. Thus circumstanced, having just entered upon practice, although his own judgment did not forbid its use under proper regulations, he dared not make an essay.

In the year 1824, however, he had an opportunity of gratifying his wishes in the case of his own child, who, at about eleven months old, was attacked with hooping cough.

Dr. Granville, of England, has reported favorably of the effects of the acid in this disease upon his own children—and believing his report, and feeling myself authorized to administer whatever my judgment indicated to be right to my own child, I gave her the following formula, viz. R. Acid. hydrocyanic, gtt. iv. ; syrup. simplic. ʒij. M. A teaspoonful morning and evening. The second day she took the same quantity three times during the day, and so continued for one week, when she was entirely well. Except a dose of calomel and rhubarb, given previous to the taking of the syrup, she took nothing else.

The decided success in this case induced me to proceed in my experiments. From that time to the present, (3d month, 26th, 1832,) I have prescribed the acid, as hereafter specified, to children, from the age of six months to that of ten, fifteen, and twenty years, and to several adults, amounting in all to more than two hundred cases; the

* "*Recherches Physiologiques et Cliniques sur l'Emploi de l'Acide Prussique ou Hydrocyanique,*" &c.

disease being radically removed in from four to ten days, or at furthest a fortnight.

During the recent prevalence of epidemic influenza, I found that when accompanied by hooping cough, the acid was not efficacious in removing the cough, and evidently increased the catarrhal uneasiness. It was therefore not persisted in.

From the numerous cases in which I have prescribed the acid in hooping cough, and an attentive observation of its powers in this appalling disease, when unattended by any other, I confidently recommend it to the medical profession. In no instance has it proved deleterious to my patients, but rather seems to have destroyed a previous predisposition to croup and catarrh.

The following is the course pursued. During the first, or what may be termed the inflammatory stage of the disease, I resort to the general depletory agents, if called on at all. Usually, however, patients seldom apply for medical advice until the second, or spasmodic stage, or that in which the *hoop* is clearly discerned. If, on inquiry, the bowels have not been freely evacuated, a full dose of calomel and rhubarb, according to the age and condition of the patient, is prescribed. If, to use the common phrase, "the child is much stopped up with phlegm," emesis is produced by antimonial wine, which, when judiciously prepared, I prefer to any other emetic. After this, the syrup is given as follows:—

For a child six months old, one drop of the acid to one ounce of simple syrup. A teaspoonful twice a day. If no uneasiness, dizziness, or sickness is produced within forty-eight hours, the same quantity is given three times a day. From six months to a year, the same may be given four times a day.

From 1	to 2 years of age,	Hydrocyanic acid,	gtt. ij.	syrup,	3j.
2	3	do.	do.	ij.	do.
3	6	do.	do.	iv.	do.
6	12	do.	do.	v.	do.
12	15	do.	do.	vj.	do.
15	20	do.	do.	vij.	do.
20	30	do.	do.	vij. to x.	do.

A small or large teaspoonful being the dose in each case, repeated as often as close observation of its effects will warrant. I have never yet given it more than four times a day.

Having tried the imported acid, and found it entitled to little reliance, I have for the last six years prescribed that prepared in this city by our judicious chemists, Farr and Kunzi, according to the formula of Mr. Brande. It contains $4\frac{1}{2}$ per cent. of pure prussic acid of Gay Lussac, and is therefore not so strong as that recommended by M. Magendie.

Believing that the acid might be efficacious in spasmodic asthma, I requested my young friend, Dr. Isaac Parrish, late resident student of the Philadelphia Alms-house, to try it. He accordingly prepared the syrup in the proportion of four drops to the ounce, and gave a teaspoonful every two hours, with decided benefit; the patient experiencing great relief in a few hours. This case, he states, had resisted any impression from the other ordinary remedies.

It is not my intention, in the present paper, to notice the statements of several practitioners in different sections of the union, who have, within a few years, administered the acid in whooping cough, because, so far as I have examined their reports, the cases have been but few in which it was fully tried. A number of my brethren in this city and elsewhere, are, at my request, engaged in experiments with the syrup, in pertussis and other affections, from whom I shall, in due season, receive reports; my object at present is only to call the attention of physicians generally to the subject treated of, with the hope that their experience may furnish as pleasant results as my own.

American Journal of Medical Sciences.

SOME CASES OF SPINAL IRRITATION.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—During a few years' practice of the profession of medicine, I have been a pretty constant reader of your valuable Journal. It was through this medium I first learned something of the character of the disease termed *Spinal Irritation*, and to this source am I indebted for the detection and successful treatment of several cases of this disease.

I do not communicate them, with the expectation of casting any additional light, either upon the pathology or treatment of the disease; but with the hope, that by adding well-marked additional cases to those already published, I may do something towards bringing an important disease, hitherto but little attended to, into that notice it seems so highly to deserve.

In the latter part of the year 1830, there came to reside in the sphere of my practice, an unmarried lady of about 25, of rather delicate habit, who, for several years previous, had suffered from a very ill state of health, and for whom I had occasion to prescribe. She had, at different times, been under the direction of several different physicians, and most of the time from the commencement of her illness been subjected to medical treatment, from which she had received no other advantage than a temporary palliation of aggravating symptoms; her primary disease seemed unaffected, and was now, more rapidly than ever, wasting her strength and undermining her constitution. She appeared to have derived no definite idea in regard to the nature or seat of her disease, either from her own observation or from that of her physicians. The obstinacy and permanence of her complaints, led her friends to believe them symptomatic of pulmonary consumption.

Her most prominent symptoms were, pain in the right hypochondriac region, extending through the chest to the left shoulder, great straitness about the præcordia, cough with but little expectoration, dyspnoea, palpitation of the heart, indigestion, distress on taking food, food and medicine often vomited up, bowels costive, catamenia irregular (intervals varying in length from two to eight weeks, at one time deficient in quantity, at another profuse), pain in the head, feet œdematous, much debility, but less emaciation than would have been expected from a review of the

permanence and severity of other symptoms. Pulse rather frequent, but this irregularity bore no proportion to other symptoms.

She had taken the blue pill, by the direction of a former physician ; but not knowing to what extent, and strongly suspecting the liver to be the principal organ in fault, I resolved on making another trial of the mercury. Prescribed the submuriate in alterative doses, with such other remedies as the urgency of symptoms demanded. The stomach and bowels were regulated by gentle medicines. Tonics being strongly indicated, were given pretty freely, but all to no purpose.

The failure of my plan of treatment, together with a more intimate acquaintance with the history and present symptoms of the case, led me to doubt the correctness of my opinion, and the submuriate was abandoned. Finding no obvious inconvenience from tonics, they were longer continued, but without any satisfactory effect. Blisters, applied to the side, produced a very partial relief of pain while the irritation was continued, but afforded no permanent relief after their removal. She was subject to severe paroxysms of dyspnœa, with a sensation of faintness, which was very distressing to herself and alarming to her attendants. On such occasions, I was several times sent for in haste, for her friends were apprehensive she was dying.

I could now administer restoratives or palliatives, but had no confidence in any new plan of treatment I could devise for the removal of the disease. There was functional derangement of almost every part of the system—of the organs in the thorax, and of those of digestion and generation ; but I was unable to determine which were idiopathically or most deeply implicated in the disease. It seemed that her former physicians had been no less embarrassed than myself ; for from what I could learn, the treatment had often been varied, to meet different views of the case, but all to no avail.

I have never been made more sensibly to feel the inefficacy of the healing art, or a want of confidence in my own ability, than when investigating this case. In those diseases that baffle our efforts by their obstinacy or violence, whose character and treatment are satisfactorily indicated, and have been promptly attended to, we can find some degree of reconciliation to the sufferings and threatened fate of our patient ; but a lingering disease, involved in obscurity, that mocks every effort of medical skill, is to a physician of common sensibility not only perplexing and discouraging, but painful.

The disquietude the condition of my patient occasioned me, induced me to bestow more than ordinary attention upon her case. I at length imagined I discovered a similarity between her case and a description I had some time previous observed in your Medical Journal, under the title of Spinal Irritation. Upon a close and particular comparison, I found the resemblance remarkably striking. A personal examination with this view confirmed my suspicions.

The fourth and fifth dorsal vertebræ were painfully tender upon pressure. A pretty large sized blister was applied over the tender surface. Its irritation immediately produced, upon a circumscribed surface around it, a large number of *boils*, with a pustular eruption of a smaller size thickly interspersed between them. This served to strengthen my

opinion of the local trouble, and the immediate improvement of the constitutional symptoms convinced me that this was the seat and origin of the whole difficulty.

She had never before been subject to any such cutaneous eruptions. Blisters upon other parts of the body had no such effect. A discharge was kept up some time by blisters, and the symptoms continued to improve. In a few weeks the patient was apparently quite free of her complaints. Some ravages had been made upon her constitution, from the long continuance of the disease ; but these, time and the restorative powers of the system have pretty much repaired—far better than I could have expected. She resides near me ; I see her frequently ; her health, strength, and spirits are quite good, and she calls herself *well*, the first time for many years.—About a year after I first saw her, she had a partial return of the same symptoms, but they were found to proceed from the same cause and readily yielded to the same remedies.

As I made no record of the above case at the time, I have not been able to be definite in regard to dates, which indeed is not essential to my design.

I have since, in two other instances, met with the same disease, of not so long standing, but quite as well developed as the one related. They bore so strong a resemblance to cases already published by Mr. Wark and others, that I consider it unnecessary to relate them in detail. They all three occurred in females, and readily yielded to the remedies prescribed by those writers.

I am fully of the opinion, as the above author observes, (though formed from a limited experience), that were physicians to examine patients with reference to this disease, “there would be no lack of cases of Spinal Irritation.”

Very respectfully, yours,

Old Town, Me., May 14th, 1832. JAMES C. BRADBURY, M.D.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, MAY 23, 1832.

HOURS OF MEALS.

THERE is no one of the innumerable superfluities with which in these degenerate days we are surrounded, that could be retrenched with less real loss than the frequency of our meals. When we compare in this respect our own habits with the extreme degree of luxury attained by the ancients, the difference does not tell remarkably in our favor. The Romans had two meals : the *prandium*, or breakfast ; and the *cœna*, or dinner, which was the principal. The Greeks had likewise their *ariston* and *deipnon* ; and it is not intimated that this number was ever exceeded. Indeed, all the references to this subject contained in the classic writers, both medical and general, present a curious contrast to modern notions on the same point, or at least to those which prevail among us. Celsus,

who is extremely liberal in the regimen which he allows to those in health, and who withholds all restriction as to quantity, yet speaks of two meals as the extent, and does not hint at a greater number. A man in health, he says, should shun no kind of food which people generally make use of ; should occasionally dine out and indulge freely, or even to excess ; should always eat as much as he can digest, and may better take two meals a day than one. But that four meals could ever be needed, does not seem to have occurred to him. We are certainly in this respect the slaves of a pernicious habit. To a man engaged in severe and constant bodily labor, it may perhaps be necessary, and it is certainly not injurious, to take food three times daily ; and so far there is nothing in established habit which can be objected against. But to those engaged in professional pursuits, technically so called, or employed in commercial business, two are quite ample. In this respect we see the natural and proper order of things completely reversed. The meals of the higher classes of society, instead of being less numerous than those of the lower, are more so. It is not unusual for breakfast, dinner, tea, and supper, to succeed each other within the space of thirteen hours ; and lest the interval between the two first should be excessive, a nondescript repast is interposed to stay the stomach.

Now we do not contend that any serious mischief arises from this cause ; that the powers of the stomach are seriously impaired, or that the health really suffers. Habit inures to this as to other violations of the natural order of things ; and probably the quantity of food actually taken is not much greater than it would be by a different arrangement. The principal objection to this multiplication of meals beyond what necessity requires, is that they consume time, and make eating and drinking the business of life. There is no doubt that an appetite, or what passes for such, may be called up at intervals even shorter than those at which these meals are accustomed to be taken. A feeling closely allied to that of hunger follows almost immediately upon the digestion of food, and is more certain to be produced where the digestion is imperfect than where this process is duly performed. If the occurrence be noticed and obeyed as the suggestion of hunger itself, meals may be repeated at intervals of less than four hours. If it be neglected, the sensation passes off, and the body is sufficiently well nourished for four hours longer, before any material inconvenience is experienced.

After all, the actual period of the occurrence of hunger depends in a great degree on the manner in which the mind is occupied. The expectation of dinner at a particular hour, will give an appetite ; while, on the other hand, if the attention is engaged, fasting may be endured for a long time, even when the body is in a state of exercise, without inconvenience. The sportsman, though he pursue the sport only as an occasional recreation and as interrupting the ordinary routine of business, will easily be

tempted to continue his rambles for eight, ten, or twelve hours, and will scarce be sensible, until his interest in the pastime has flagged, that he has trespassed so much on his usual hour of dining. Whatever strongly fastens the attention, will have the same effect ; and nothing can make frequent meals really desirable except the being without any object to occupy and interest the attention.

There can be no doubt that the majority of persons not employed in severe muscular labor, might limit their daily number of meals to two—a breakfast and a dinner—so as to secure a greater amount of personal comfort, and to leave more time for attention to business, than are secured by the present arrangements. There are indeed many who, even while they conform to the present custom, acknowledge its absurdity ; and while they go through the ceremony of a morning and evening repast, make dinner their only substantial meal. Nor are we aware that such persons experience any inconvenience from this cause. In fine, this, like all mere personal arrangements, ought to be regulated according to the circumstances of each individual ; but it may be considered as a truth fully established by experience, that the number of meals which custom sanctions among us is not rendered necessary by the constitution of our bodies, and was never designed by nature. In this, even the savage may read a lesson to the civilized man, since what the former does from necessity and as a consequence of the uncertainty of his supplies, the latter may imitate in a degree according to the dictates of an enlightened philosophy.

There is one other point in regard to which we are satisfied that a mistake exists with many ; namely, the advantage to be derived from the frequent use of animal food. Many persons, leading lives comparatively sedentary—that is, unattended with severe labor—imagine it for their advantage to eat animal food twice or even three times daily, under the idea of increasing thereby the muscular strength. It is extremely doubtful, however, whether this effect follows, and whether the system is as well nourished when so large a proportion of the food taken is animal. The hollow feeling of which we have spoken, and which is mistaken for hunger, follows much sooner and more certainly where meat is taken, than where it is not ; and where the digestion is not strong, a breakfast of vegetable diet will keep off unpleasant sensations for a longer time than one of animal food. The idea of the necessity of taking animal food twice daily, may therefore very fairly be set aside ; and the question as to its use or neglect being one to be decided by the inclination which precedes and the effects which follow, we believe if attention were paid to these that many more would find it their choice to breakfast with Pythagoras, and save their appetites for an Epicurean dinner. *Sat verbum sapienti.*

THE HEALTHINESS OF DIFFERENT TRADES AND PROFESSIONS.

MEDICAL men are frequently called on by reflecting parents, to decide on the effect of an anticipated occupation of a son or daughter, upon the bodily health. We say by *reflecting* parents, because none but the thoughtless would advise a child to any mode of procuring a subsistence on the sole ground of its pecuniary promise. The moral tendency of the proposed employment, the associates with which it will necessarily bring one in contact, and the effect of its pursuit on the constitution, will be weighed deliberately and advisedly by the wise parent; and the part the physician has in enlightening his mind on this oft-times difficult and always responsible question, is altogether too important to be acted without due examination and serious thought. We propose, therefore, in future numbers of this Journal, to offer some practical remarks on this subject, and embody most of the facts, which are desirable to be known, that have come to light in the course of its recent investigation.

The modification in diseased states of the system, induced by the habitual employment of the patient, and its bearing on the courses to be pursued in the restoration of health, will render this inquiry doubly useful to every active practitioner.

 SCARLATINA.

WE are happy to find that the scarlet fever, which has prevailed the past year with great fatality in this city, begins to decline. The last two or three weeks there appear to have been but few bad cases, and most of those we have seen have been such as were usually met with in former years. Feeble, however, are the hopes that may be reasonably indulged of its continuing thus mild for many weeks. There is a character of malignity about most of the epidemics which have recently prevailed, both in the new and old world, that indicates a constitution of the atmosphere under which we can expect little immediate amelioration in the symptoms of disease.

Although new cases are mild, many instances have come to our knowledge of sudden death from effusion into important cavities, during convalescence. A remarkable instance was that of a boy three years old, who went through the scarlet fever without any unusual occurrence. A week after he was considered well, the medical attendant remarked, when on a visit to another member of the family, how well this boy appeared, and all the friends supposed him to be growing fat. After playing about the house all the forenoon, he was attacked suddenly about 1 o'clock, P. M. with difficulty of breathing, tumefaction of the abdomen and the extremities, and other symptoms of effusion of water into the thorax, abdomen, and cellular membrane. The intellect and speech were unaffected. The dyspnœa increased rapidly. The face and neck

presented an aspect which indicated a very imperfect arterialization of the blood, and death closed the scene before the following morning.

This instructive case shows with how much caution we should give our prognosis in cases of this description ; and we refer the reader to the excellent work of Dr. Dewees for some very important lessons on this interesting topic.

Analysis of the Blood taken from a Patient affected with Cholera.—Dr. Reid Clanny has communicated to the editor of the *London Lancet*, the following interesting analysis of the blood drawn from a patient affected with cholera. The blood was detracted five hours after the invasion of the disease. The disease proved fatal in seventeen hours.

This blood, on applying the tongue to it, Dr. C. says, had no taste, nor any particular smell, as was equally the case with the coloring matter, the albumen, and the fibrine. It contained no gases of any description ; was as black as tar.

For comparison, Dr. C. gives the analysis of the blood of a healthy person. This last contained one cubic inch of carbonic acid in the sixteen ounces.

	Healthy blood.	Cholera patient.
Water - - - - -	756	644
Albumen coagulated - - - -	121	31
Coloring matter - - - - -	59	253
Free carbon - - - - -	32	66
Fibrine pressed and dried - -	18	6
Muriates of soda and potass, carbo- nate of soda and animal extraction }	14	0
	1000	1000

Seat of Hydrocele in Women.—The *Archives Générales*, for July last, contains a translation of an interesting memoir by Dr. Sacci, which originally appeared in the *Annali Universali* for March, 1831, on hydrocele in women, a disease of rare occurrence, but which is mentioned by writers on surgery. Dr. S. asserts that he is satisfied that the opinions hitherto entertained respecting the seat of that disease are erroneous ; and he remarks that it is not very unusual to meet in women with an appendix of the peritoneum analogous to that which accompanies the testicle in men, and that it is in this prolongation that the serosity which afterwards constitutes the hydrocele is first contained.

Rare Luxation of the Patella.—Dr. Martin has communicated to the Medical Society of Lyons an instance of luxation of the right patella, the inner edge of which bone was in contact with the anterior and middle portion of the articular surface of the femur, its external edge projecting anteriorly. It occurred in a young lady, fifteen years of age, whilst turning in her bed. Dr. M. reduced the luxation by flexing the thigh on the abdomen, and then seizing the patella with both hands, and drawing it outwards turned it back to its natural position. The patellæ in this subject were small, and the ligaments somewhat relaxed.—*Arch. Gén.*

Some surgeons have denied the possibility of such a luxation. Jean

Sue, however, communicated to the Royal Academy of Surgery, in 1752, an instance of it, and another case is recorded by Dr. Wolff, in Rust's Magazine for 1828, B. 27.—*Ibid.*

Treatment of Burns.—M. Roche has employed cold water as an application to burns, and has found it to calm promptly the excessive pain produced by these injuries. But when burns are very extensive it would be difficult to keep the patient constantly in cold water, and the prolonged application of that remedy would also be productive of considerable inconvenience. The pains, however, M. R. says, may in such cases be perfectly removed by the application, for two or three hours, of ice to the head. M. Lombard has been led to adopt this mode of treatment from the great advantages he has derived from it in neuralgiæ wherever they may be seated; and he employs it successfully to calm all intense pains.—*Transactions Médicale.*

Excision of the Elbow Joint.—This operation has been performed by David Kerr, Esq. of Aberdeen, upon a boy sixteen years of age, who had a disease of the elbow joint of ten months' standing. The patient was in a fair way of recovery.—*Ed. Med. and Surg. Journ.*

Nocturnal Emissions of Semen.—Professor Bangs, of Copenhagen, strongly recommends for the cure of this affection the muriated tincture of iron.

Dr. Cless states that he has employed the cubebs with advantage for the relief of that discharge.—*Nova Acta Regiæ Soc. Med. Havn.*

Sulphur as a Preservative against Measles.—Dr. Tourtual, a Dutch physician, states, that at a period when measles were epidemic, all the children who were under treatment with sulphur for itch escaped the disease; and that those who were taking sulphur for the cure of whooping cough enjoyed the same immunity. Finally, he says that many children who were given a mixture of sulphur and camphor, and to whom these medicaments were applied by frictions, were not attacked with measles, whilst those who were not subjected to that medication were affected.—*Kleinert's Repertorium, and Gaz. Médicale.*

Cephalalgia cured by the External Application of Cyanuret of Potassium.—M. Andral has employed the cyanuret of potassium with complete success in a case of most intense cephalalgia, which had resisted for ten months the most powerful remedies (bleeding and seton in the neck, blisters and sinapisms). The salt was employed in solution in the proportion of from six to eight grains to the ounce of distilled water, and compresses wet with this solution were applied for eight days to the forehead and temples.—*Gaz. Méd.*

Hysteria.—Professor Chiappa states, that enemata of iced water immediately dissipate the symptoms which characterize the hysteric paroxysm.—*Annali Universali.*

Nephritic Colic.—Dr. Dubla relates in the *Osservatoire Med.* for July, 1831, two cases of nephritic colic relieved by frictions over the regions of the kidneys and ureters, with an ointment composed of fifteen grains of extract of belladonna and half an ounce of lard. Dr. D. resorted between the frictions to the warm bath.

Connecticut Medical Society.—At a meeting of the Medical Society of Connecticut, in Convention, at New Haven, May 9th, 1832, the following were the officers elected for the present year:

President.—William Buell, M.D.

Vice President.—Thomas Miner, M.D.

Treasurer.—Joseph Palmer, M.D.

Secretary.—Charles Hooker, M.D.

The Cholera appears by the last advices from Europe to be feeding itself to repletion in Paris. In the 24 hours ending at noon, on the 7th of April, there were reported 717 new cases, of which 470 were in males and 247 in females. The whole number of cases in Paris up to the above date, was 3077, and of deaths 1199. The only person of note who is said to have suffered from the disease, is M. Casimir Perrier, the prime minister of France. He was attended by Drs. Emery and Broussais, who had twice applied leeches—of course. Their distinguished patient was not considered out of danger, though the symptoms of his disease had somewhat abated.

In London, the cholera continues to subside. On the 10th ultimo, but 39 cases were reported and 28 deaths. In other parts of the kingdom there were reported but few cases, and those not very fatal. The Faculty in England, having exhausted every other topic for discussion and dispute relative to the disease, are driven at last to the question, whether or not the true cholera has been in any part of Great Britain. The negative is supported with considerable earnestness.

WE acknowledge the receipt of Gooch on the Diseases of Females, Dr. Henderson's Address, and the treatise on Medical Reasoning; each of which will be more particularly noticed next week.—The communication this day published under the signature of Tissot, is from the pen of a physician of long experience, and an author of considerable note, who chooses to withhold his name from the paper, but has authorised us to give it to any one who may desire it.—The valuable essay on *Sanguinarine* and its salts, and the remarks on *Scarlatina*, came too late for the present number.

Whole number of deaths in Boston for the week ending May 19, 41. Males, 24—Females, 17.

Scarlet fever, 4—throat distemper, 2—consumption, 4—measles, 6—unknown, 4—paralysis, 1—infantile, 2—dropsy on the brain, 3—teething, 2—mortification, 1—dysentery, 1—inflammation in the bowels, 1—rupture of a blood vessel, 1—disease of the head, 1—dropsy, 1—scald, 1.

ADVERTISEMENTS.

NEW MEDICAL WORK.

CARTER & HENDEE have this day received, An Account of some of the most important Diseases peculiar to Women. By ROBERT GOOCH, M.D., Author of a Practical Compendium of Midwifery. In 1 vol. 8vo.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

WEDNESDAY, MAY 30, 1832.

[NO. 16.]

SANGUINARINE AND ITS SALTS.

On the Medicinal Powers of Sanguinarine and its Salts. By WILLIAM TULLY, M.D., Professor of Materia Medica and Therapeutics in Yale College.

Communicated for the Boston Medical and Surgical Journal.

IN the year 1828, Adrian Russell Terry, M.D., then a student in the office of Dr. Alden March and myself, in Albany, obtained, under my direction, a considerable quantity of the vegetable alkaline salifiable base *Sanguinarine*, with which he prepared several of its salts, and with all of which he made experiments (still under my immediate observation) first upon himself, and subsequently on some of his fellow students, till its operative effects upon persons in health seemed to be well determined. From that time to the present, I have been constantly in the habit of employing the *Tartrate of Sanguinarine* in my medical practice, by which I have obtained decisive proofs that it possesses, in a concentrated form, all the most valuable remedial powers of the root of the *Sanguinaria*, and its ordinary pharmaceutic preparations, with the medicinal use of which, I have now been extensively conversant for about twenty years. Most, if not all of the results thus obtained by Dr. Terry and myself, have been confirmed by the observations of several other professional gentlemen, whom we furnished with the salt in question, or who have obtained it for themselves. That the operations of *Sanguinarine*, and its salts, may be the better understood, and more especially to assist the comparison between these, and the ordinary preparations of the root of *Sanguinaria*, I shall here give a summary of the effects of the latter.

The continued internal use of simple root of *Sanguinaria*, especially in tincture, in as large doses as can be taken without disquieting the stomach, and repeated at regular and short intervals, removes torpor of the liver, and occasions an increased secretion from that viscus, and apparently also from all the secretories that open into the stomach and upper intestines ; while, at the same time, it seems to produce a universal change of condition and action in the whole secernent and absorbent systems, by means of which, as would seem, it resolves and entirely obviates certain acute, sub-acute, and chronic atonic inflammations, not only of the thoracic and abdominal viscera, but also arthritic (i. e. gouty

and rheumatic) inflammations of the muscles and joints. In connexion with, and, as I am satisfied, in consequence of its operation upon the secretories of the alimentary canal, it *occasionally* excites the appetite, promotes digestion, and produces a gradual and moderate (though, as is believed, indirect) increase of the force and fulness of the pulse. In addition to these more common effects, it sometimes promotes the excretion of mucous or muco-purulent matter, from the bronchial membrane, and sometimes it restrains these discharges, according to the different circumstances of the case. Sometimes likewise it powerfully excites the catamenial secretion, and occasionally it has been known to produce uterine hemorrhage. In still larger doses, it nauseates strongly; but, independent of this effect, it powerfully abates irritative hardness and frequency of the pulse, and irritative heat and dryness of the skin, and usually it occasions a quickly diffused and transient, but, at the same time, a very peculiar nervous thrill, which pervades the whole system, and is often extended to the minutest extremity. When *Sanguinaria* is pushed in this way, to an improper extent, it sometimes occasions vomiting, but more frequently burning at the stomach, faintness, vertigo, impaired vision, general insensibility, coldness, extreme reduction of the force and frequency of the pulse, together with great irregularity of action, and often palpitation of the heart, great prostration of muscular strength, and sometimes, though rarely, a convulsive rigidity of the limbs. In a few instances, in which very large doses have been taken by mistake, neuralgic pains have been produced in various parts of the system, and sometimes a violent but transient gastrodynia. In other instances a tetanic rigidity of the limbs, and even of the whole body, has followed such a dose;—and in others still, both of these effects. In large and full emetic doses, it speedily excites vomiting, but without producing much nausea, or any considerable evacuation of fluids from the stomach, or any material diminution of the general energies of the system. If pushed to an injudicious extent as an emetic, it occasions great anxiety, and the above detailed symptoms of narcosis. As a general rule, it is believed, that after the internal use of *Sanguinaria*, the stomach and intestines are mostly left in a good condition, and not in an irritable, and disordered state. Now, I have repeatedly witnessed all of the above operations, except the neuralgic pains and the convulsive affections, from the use of the *Tartrate of Sanguinarine*, and I entertain no doubt that even these may be produced by a sufficient quantity of this salt.

Under ordinary use, the *Tartrate of Sanguinarine*, in moderate and uniform doses, at regular and short intervals, commonly allays morbid irritability and irritation, and particularly irritative frequency of the pulse and irritative cough. It likewise evidently exerts an especial operation upon the secernent and absorbent systems, by which a greater or less change of condition and action is produced,—by which in health, or when there is torpor or inactivity of these parts, both secretion and absorption are increased; or, when there is excessive or vitiated secretion, it is restrained and improved,—by which certain dysthenic or cachectic complaints are removed, certain cutaneous eruptions cured, and a resolution of certain chronic, sub-acute, or acute atonic inflammations, is produced; the whole independent of any change in the degree of the vital

energies, or the strength of the action of the circulating system, and unconnected with any evacuation to which the remedial effects can be attributed,—at least, independent of any which can at all be considered as an essential part of the general operation. In one word, it is eminently deobstruent. It also possesses emetic powers, but it appears to be of very little value for the purposes of an emetic.

In large doses at once, or large quantities in the twenty-four hours, it produces vertigo, dilatation of the pupils, the appearance of a cloud before the sight, staring and protuberance of the eyes, a peculiar haggard expression of the countenance, nausea, epigastric uneasiness, coldness of the surface, more particularly of the extremities, cold sweats, diminution of the frequency, and irregularity of the pulse. From a single large dose, these symptoms begin in the course of half an hour, and disappear entirely in the course of about three hours.

The emetic powers of the *Tartrate of Sanguinarine* are much less considerable in comparison with its deobstruent and narcotic operations, than of the ordinary preparations of the root of *Sanguinaria*. However, small doses of the *Tartrate of Sanguinarine* are much more emetic, in proportion to their size, than large ones. Perhaps this may be accounted for by the circumstance that large doses produce so much narcotic effect as to prevent an emetic operation, while small ones scarcely produce any narcosis at all.

After trying various doses, Dr. Terry at last took a scruple of the *Tartrate of Sanguinarine* at once, with the production of all the preceding symptoms. In this case, the dilatation of the pupils was very great, and the strongest light of the sun was utterly incapable of producing the least contraction, or of giving the least uneasiness, though vision was no otherwise impaired than by a sensation of a dark cloud immediately over the eyes. The maximum of the effects of this dose, took place in about an hour; and while under its greatest influence, the pulse was preternaturally full and flowing, without bounding, hardness, or any mark of irritation. In about twenty hours after this dose was taken, there was a discharge from the intestines, which was noticed to contain a very unusual quantity of bright yellow bile.

I think there are some cases of disease in which *Sanguinaria* appears to be highly indicated, but, on trial, it produces a disagreeable effect either upon the stomach, or the head, or both, and fails of giving the desired relief. I know of no means of distinguishing these particular cases, except by trial. If the case is one of this sort, any of the ordinary preparations of the root of *Sanguinaria* will perhaps impair or destroy the appetite, increase the frequency of the pulse, and gradually debilitate, without relieving the disease. Under such circumstances, the article should never be persevered in. I think, however, that I have satisfactory reason to believe that the *Tartrate of Sanguinarine* will agree sufficiently well in many, if not the whole of such cases.

With pure and uncombined *Sanguinarine*, but few trials have been made. Mr. A. B. with torpid liver, evinced by cinereous discharges, and costiveness, at about eight o'clock in the evening (November, 1828) took a fluidrachm of a saturated alcoholic tincture of pure *Sanguinarine*, the alcohol being of the specific gravity of 835. In a few minutes, there

was nausea, which continued about two hours, but not in a very urgent degree ; and, at the same time, there was a lancinating pain, rather severe, in the superior and posterior part of the orbits of the eyes. The patient went to bed at the customary time, and no further effects were perceived during the night. In the morning there was a profuse loose discharge from the intestines, of a bright yellow color, and evidently containing a considerable quantity of bile. From the circumstances attending this, and other analogous cases, in which *Sanguinarine* or the *Tartrate* of this alkali has been employed, there is believed to be good reason for concluding that discharges from the intestines are not a direct, primary, and regular effect of these preparations, but dependent merely upon their cholagogue operation ; since they have never been observed to operate in this manner, except where they have produced a considerable excretion of bile.

In short, the *Tartrate of Sanguinarine*, and some other of its salts, have been considerably used by several of my professional friends, as well as by myself, and, as I think, to an extent sufficient to prove abundantly that this alkali is the medicinally active principle of *Sanguinaria*. Since I first became acquainted with it, I have taken care not to be destitute of it, so that I have already acquired a good degree of familiarity with the modes of management which seem to be necessary to its best effects, and I am satisfied that it is much preferable for medicinal purposes, to all the common preparations of the root of *Sanguinaria*.

It is not my intention, at this time, to treat of its therapeutic applications. In this place it will be sufficient to state, that I have found it peculiarly valuable in Icterus, Dyspnœa-exacerbans, Pneumonitis Typhodes, and Arthritis Rheumatismus v. acutus v. sub-acutus. In several instances, I have very speedily cured severe cases of jaundice, almost exclusively with this article, and I have as often suddenly arrested an exacerbation of Dyspnœa. I have also several times known a rapid resolution of Pneumonitis Typhodes produced by one, two, or three full doses of it, and I have reason to believe that many cases of acute and sub-acute atonic Rheumatism are equally capable of being suddenly arrested by it.

Indeed, such is my conviction of the value of the salts of *Sanguinarine*, that I am satisfied they require only to be well known, by the medical profession, to be introduced into general use ; and were they to be obtained upon a large scale, I am inclined to think they might be afforded at the rate of a dollar an ounce.

New Haven, Ct., May 17, 1832.

SCARLATINA.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—A communication in the 13th No. of your Journal, upon the treatment of Scarlatina, induces me to give my experience in the management of the disease, which differs in some points from that of your correspondent.

The disease made its appearance in this region sometime in May, 1831, and has continued among us to the present time. In June, July and August, it raged with the greatest severity ; but those cases that have occurred since, were most of them Scarlatina in its mildest form. Previous to the appearance of this epidemic in this vicinity, it had prevailed to a considerable extent in Brewster, New Bedford, and a number of other towns about us ; and so unsuccessful were some of the attending physicians in its treatment (which I have been informed was similar to that of your correspondent), that the impression became general here, that medicine and medical skill could not control it, and the presence of a physician in a case was considered by many as a sure harbinger of a fatal termination. Consequently, when it first visited us in May, I was not called until the king of terrors menaced the speedy dissolution of the parents' fondest ties ; they then became more willing that their offspring should die under the eye of a medical attendant, than that they should die under their own care. The first patient to which I was summoned, was a young lady of fifteen, of light complexion and delicate constitution, laboring under the severest form of *Scarlatina Anginosa*. I administered ℞j. pulv. ipecac. ; gave directions to have that succeeded by ℥ss. ol. ricini, to be repeated if it did not produce effectual catharsis ; this to be followed by the internal exhibition of powders, composed of pulv. ip. comp., nit. potass. āā grs. 5, every fourth hour. Sinapisms were applied to the feet and nape of the neck, there being a severe headache with paroxysms of raving delirium and constant alienation of mind. As there was great inflammation and ulceration of the tonsils ; uvula, and velum pendulum palati, I ordered the lint. ammo. cum ol. terebinth. to be applied externally to the throat, and a gargle of muriatic acid. This was the second day of attack, upon which I was first called.

Upon the third day, I found my patient still delirious, with a burning heat upon the skin, and a scarlet blush upon its whole surface ; bowels tumid, pulse 140, small and depressed, great prostration of strength and septic tendency of the fluids. Continued the sinapisms, gargle, liniment, and pulv. ip. comp. with the omission of the nitras potass. ; ordered half a grain of sulph. quin. every sixth hour, the head to be shaved, and a cold lotion of the muri. ammo. dissolved in dilute acetic acid, to be constantly applied thereunto, as well as to the whole surface of the body ; and rubefacients to the bowels, with an enema of ol. ricini in a proper vehicle, to solicit from them a discharge.

The next morning I found my patient tranquil ; she recognized her friends, had passed a more comfortable night, pulse not so frequent and better otherwise, tumefaction of the abdomen subsided, but morbid heat of the skin lessened only by cold ablutions ; there still remained however an occasional wandering of the mind. Continued the same treatment.

Upon the fifth day found my patient evidently relieved, and, contrary to the expectations of her friends, recovering in the most desirable manner.

Since the above, I have had seventy or eighty cases, the majority of which were analogous to it in most of its details. I have treated them in the same way, varying the quantity and frequency of the medicine as the age and constitution of the patient, and violence or mildness of the dis-

order, seemed to require, and have lost two only of the number. Of these two, one was a child about eighteen months old, to which I was not called until the sixth day from the attack ; and from its having been neglected so long, it died upon the seventh day. The other was a young man about 20 years of age, who was attacked with *Scarlatina Maligna*, eight miles from home ; and after that, was brought home to be placed under my care ! On the second day, livid spots appeared upon the skin, followed by a dark purple hue of its whole surface, a diarrhoea supervened, and he died on the third day.

What effect venesection, vesication, and mercurial purgation would have had upon my patients, I do not know, as I did not try them ; having been satisfied with such treatment as ensured the desired result. In milder cases than those above mentioned, I sometimes substituted a mild gargle, and where there was a high fever, with but a slight prostration of muscular energy, increased the quantity of nitre, and added to other means noticed, sudorifics of pulv. ip. or ammo. acetat. liq. ; and in some cases found it necessary (particularly with young children, who swallowed all secretions that came into their mouths or throats) to vomit a second and third time. Beverages, also, of balm or linseed teas acidulated with lemon juice, were allowed ; and in the advanced stages of the complaint, where there was a great loss of vital power, and symptoms of putrescency appeared, I gave wine whey, or port wine in conjunction with the sulph. quin. and directed a more generous and nutritious diet. This has been my management of *Scarlatina* in this place ; but how far it would succeed in other places, or how long it will be attended with success here, time and experience alone must determine.

Very respectfully, yours,

North Falmouth, May 18th, 1832.

L. W. SHERMAN.

CAUSES OF CERTAIN ERUPTIVE DISEASES.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—The paper of Dr. North, in your No. 14, upon “*Eruptive Disease*,” arising from the taking of Cubebs and Copaiba, is very interesting ; but these are not the only articles that produce this effect. Many other articles of the *Materia Medica*, and also several kinds of food, produce the same result, either on persons of particular constitutions, or on individuals under certain circumstances. Opium, for instance, in large doses, will accomplish it in almost any constitution ; and smaller doses of the same medicine, in certain persons and under peculiar circumstances, will produce it in some.

I have several times known the West India Preserved Ginger occasion a general disturbance of the animal system, accompanied with an efflorescence of the whole body, with a swollen face, attended with itching and burning, resembling the worst form of *Urticaria*. The fruit of *Anacardium*, or the Malacca Bean Tree, if eaten raw, will do the same. Pills of Aloes and Colocynth will sometimes produce this effect. I once knew a very distressing case of the kind from this medicine.

The same consequences arise from various kinds of food, as lobsters, clams, mackerel, dolphin, and certain vegetables. Nuts, and dried fruits of all kinds, cherries, especially when they first come, are very apt to produce constitutional irritation and fever, with eruptive disease. Rest, an antiphlogistic diet, with aperients and salines, will soon accomplish a cure ; but an emetic will generally do it sooner.

An eruptive disease, similar to urticaria, is one of the most common effects of the drinking of cold water when the body is heated, should the sufferer survive the first shock. In fact, we may with truth say, that whatever weakens the tone of the stomach, and produces a difficulty in the digestive process, is likely to occasion constitutional disturbance, which may fortunately end in a disease of the skin. MEDICUS.

May 20th, 1832.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, MAY 30, 1832.

DISINFECTING POWER OF HEATED AIR.

SEVERAL years ago the efficiency of heated air, in destroying contagion, was brought forward by Mr. Wallace of Dublin. He recommended to the guardians of public health, as well as to the profession, an instrument he had invented for the application of this disinfecting power, and urged its adoption in hospitals, quarantine grounds, and other appropriate situations. His proposition attracted little notice at the time, but is just revived in England, and, at a time when contagion and its principles are under general discussion, bids fair to meet the favorable reception it unquestionably merits.

The first thing was to determine the fact that heated air alone has the power of disinfecting articles of clothing, &c. that are subjected to its influence. This fact was proved beyond a doubt, by experiments made with articles impregnated with the miasm of smallpox. The next point was in what manner this agent should be applied. For this purpose Mr. Wallace constructed an apartment, resembling in every particular his well-known apparatus for the administration of sulphur baths. This apparatus has the double advantage of being useful as a sulphur bath, when not in use as a disinfecting machine ; and is also suitable for the exposure of clothing, &c. to different kinds of vapor, should any doubt exist of the efficacy of the hot air alone.

The next thing to be done was, to compare this mode of disinfection with others in common use. This has been done originally by the projector, and recently by others, and no one questions the superiority of the new method. It is much less expensive than washing, which is the usual

mode of purifying the clothing of the sick ; it requires less delay as well as trouble ; it may be applied to hats and other articles which cannot be washed without injury, and it prevents the necessity of exposing those engaged in purifying the garments of the sick, to the same disease : thus does it extinguish one of the most frequent methods by which contagious diseases are communicated from person to person and from place to place. This last point is one that must present itself with peculiar force to all who are familiar with the history of infectious diseases. How often do we hear of such diseases first breaking out in a town, in the persons of those engaged in washing the garments of individuals recently arrived from an infected port :—a mode of introduction of which we should never hear, were the infection in such clothing previously destroyed by subjecting it to the action of that simplest of purifiers, heated air.

The subject is one, at the present time, for reflection rather than discussion, and as such we present it to the reader.

THE EFFECT OF FEAR IN RENDERING THE SYSTEM SUSCEPTIBLE OF DISEASE.

THERE are four classes of persons who enjoy remarkable immunity from infectious diseases ; and three certainly of these classes are composed of the very persons who would be thought most liable to suffer from such epidemics. We mean physicians, nurses, children, and that class of excellent, kind-hearted females who delight, and to their honor be it told, in going about among the sick, watching with them, and performing for them numerous friendly offices that alleviate their pains and spare them many an hour of gloomy solitude.

The physician is constantly passing from the open air to the sick chamber, and from the latter again into the former ; he is fatigued by his labors, and, naturally perhaps of a slender constitution ; yet he escapes ; whilst the friend or relative, strong, robust, and living at ease in a healthy situation, makes but a single short visit to the patient, and imbibes his disease. The nurse, under circumstances in one respect the reverse of those above related, lives on, day after day and night after night, in the atmosphere of disease, and yet enjoys a similar immunity. The benevolent watcher, familiar with scenes of distress, and interested in relieving it, seldom suffers in consequence of her anxious toil ; and the infant hangs on the breast of its mother whilst she is suffering from the plague, without catching her malady. The causes of this immunity are unquestionably various. The system, in some of the cases above stated, becomes gradually accustomed to a diseased atmosphere and less susceptible of its peculiar stimulus. But when we view the whole ground, and reflect on the peculiarities of all the classes that are usually slow to receive infection, and contrast them with those of the persons most fre-

quently and easily affected by it, we are drawn irresistibly to the conclusion that *fear*, *apprehension*, more than any other single agent, brings the system into a condition suitable to the reception of morbid influence ; and that the absence of fear, more than natural strength of constitution or vigor of health, renders it insensible to such influence. Infants, from the limited extent of their reasoning powers and their observation, are protected entirely from any of the peculiar effects of the fear of disease ; and the other persons mentioned, by their familiarity with sickness and its usual paraphernalia, and by the active part they are called to take in the care of the diseased, seldom if ever think of any personal hazard. The occasional visiter, on the other hand, unaccustomed to the solemnity, the scenes, and the circumstances of a sick chamber, is awed, embarrassed, agitated perhaps by the impressive manner, look, movement, and conversation of all present ; he sympathises deeply with his friend, imagines himself in the same condition, fears he has already imbibed the seeds of his disease, and takes his departure only to have those fears realized.

Every physician knows that in times of epidemics, those persons who ask with most earnestness and anxiety what means of *prevention* they can adopt, are uniformly the first to require the means of *cure*. We would impress these facts strongly on the minds of all. In sickly seasons live temperately and trouble not yourselves about your personal danger : if your friend is attacked and you can serve or console him, think not of your exposure, but visit and minister to him ; and if you do this with disinterested zeal, with a ready hand and a willing heart, with a clear conscience and undaunted spirit, you will find your reward in an almost certain immunity. We know no other protection—we can give no better counsel.

HEMORRHOIDS.

THE frequency of this disease, and the suffering it occasions, renders its treatment a subject of peculiar interest to the practitioner. For ourselves, we have seldom failed to remove piles by the internal administration of tincture of digitalis, and the external use of stramonium ointment. When all other means of relief fail in any case, and an operation becomes necessary, it is a question of some importance what that operation shall be. In this country, and we believe in most others, the knife only is resorted to in such cases. Recently, Mr. Brodie, an English surgeon whose name and high repute are familiar to the reader, has been induced to abandon the operation of excision, from the profuse and occasional dangerous hemorrhage which it oft-times produces. He has removed the disease by *tying*, in more than three hundred cases ; and all have done well but one, which was a very bad subject, and one on whom

he was compelled to perform the operation against his own inclination. Some danger attends, in the opinion of Mr. B., the tying of internal piles, but those that are external may always be thus removed with safety and ease:

THE CHOLERA.

SINCE our notice of the cholera, accounts have reached us of its existence in Ireland, and of its shocking ravages in France. In Paris and its environs the disease has spread with a rapidity that has not marked its progress in other countries. It is stated in the Paris Journals that M. Magendie has the care of a large number of the cases, and has been unusually successful. His peculiar mode of treatment consists chiefly in the free administration of punch and hot wine.

The deaths are so numerous every day that hearses have become altogether inadequate to the purposes for which they are ordinarily used, and the dead are carried to their burial places in large waggons containing six biers each. The carriage of one of the marshals, being very large and capable of containing eleven coffins, is also brought into use for the removal of the dead. On the last days of March the number of *deaths* by the disease was 98. In April, the deaths on each day, from the 1st to the 16th, were as follows:—79, 168, 212, 242, 351, 416, 582, 769, 861, 848, 769, 728, 816, 692, 567, 512. Total, 8710.

The extremely rapid strides, however, and the alarming fatality of the disease, in Paris, are not altogether unexpected by those acquainted with the local peculiarities of the city, and the habits of living of a large portion of its crowded inhabitants. The circumstance that arrests the attention is, the inroads it has made in the fashionable quarters and the higher classes. The Prime Minister of France has been attacked, but is recovered. Among the distinguished persons who have fallen victims to the disease, are mentioned—The Baron of Montville, Peer of France; M. Musset-Pathay, Major General of Division; the lady of Colonel Chateau; Count de Coetlosquet, Peer of France; Dr. Leroux, dean of the Faculty of Medicine; Dr. Petit, Surgeon of the Hospital of Gros-Caillon, and many other physicians of Paris and its departments; Prince Casteleicala (Neapolitan Ambassador); MM. Morel and De la Pommeraié (Deputies); a son of N. de Schonen, a Commissary of Police; a Greek Officer in the French service (Mavrocordato); Count Morand; the Marchioness d'Etampes, and the Baroness de Litre. There were not a sufficient number of Deputies present on the 10th to constitute a House. The President of the Chamber of Peers announced on that day the death of Viscount de Cassine, one of the new Peers.

We are frequently asked why it is the cholera should have attacked such persons in Paris, when in every other place it has been almost confined to the lower classes. The question is difficult of solution. We put it to the profession.

The most eminent physicians in France are divided on the question of the contagiousness or non-contagiousness of the disease. The Journals that are in favor of the former doctrine, present the opinions of those who coincide in their views; whilst those engaged in supporting the former, publish, in a manner equally conspicuous, the opinions of those medical men who are enlisted as non-contagionists. On this subject we could not have expected a unanimity of opinion in France, although the newspa-


pers on each side would have the public believe such unanimity to exist. A similar diversity of opinion has existed at the entrance of the disease into every other country it has visited ; but after a more intimate observation of it, most of the intelligent and distinguished members of the profession have voluntarily subscribed to the opinion of Drs. Barry and Russell :—the more closely they notice and become acquainted with the disease, the more reason do they see to believe it, in a measure at least, contagious. The disease, in its progress, seems uniformly to prostrate one after another of the arguments of the non-contagionists. For example, on the 4th of April, the news from Paris is—"On the question of contagion, the uniform belief is that it cannot be communicated by contact, for none of the physicians or nurses have been attacked." On the 10th of April, we hear of the death of the physicians before mentioned, besides several others who have been attacked by the disease while returning in their carriages from their visits to cholera patients. Of the nurses and sisters of charity, we know not how many have fallen victims to the malady in every town where it has prevailed.

The cholera in London had very much abated. The number of new cases reported on the 20th, was 7 ; of deaths, 3—recoveries, 17. On the 19th, new cases 10, deaths 5. Whole number of cases in London, 2477 ; of deaths, 1301. In Cork there had been, to the 19th, 85 cases and 38 deaths ; and in Dublin, to the 20th, 95 cases and 56 deaths. Of these cases 42, and 27 deaths, were reported on the last two days. In Glasgow and suburbs, 869 cases and 445 deaths : new cases on the 20th, 16 ; deaths 7. A number of cases had appeared at Goole, in the neighborhood of Hull ; also at Selby, near Leeds, and at Darlington.

The Cholera Gazette.—There is published in London a monthly periodical, called "The Cholera Gazette," containing official papers, &c. on the subject of this disease. The title would answer equally well for almost any of the medical Journals published in that metropolis during the last six months.

Massachusetts Medical Society.—The Annual Meeting of this Society will be holden at the Society's Rooms, in the Boston Athenæum, on Wednesday, the 6th day of next month. We trust that the second vol. of the Library of Practical Medicine, embracing Mr. Pearson's Principles of Surgery, and Abernethy on the constitutional Origin and Treatment of Local Diseases, and on Aneurisms, will be ready for delivery on the day of meeting.

Spotted Fever in New London.—We learn from the Middlesex Gazette that the spotted fever or sinking typhus at New London (Ct.) has subsided, and that that city is now nearly restored to its usual health. A recent letter states that there had been 260 cases of the disease, of which 12 only were fatal. The diaphoretic and stimulating practice has been universally resorted to, by all the physicians, and has been crowned with very great success.

 Dr. T. will confer a favor on the profession by describing the process by which he obtains the Sanguinarine and its salts.—The *experiments* alluded to in his private letter must be interesting, and we shall be happy to present them to the public through the medium of our pages,—as also the other papers referred to.

Monthly Notice of New Publications.

An Account of some of the most Important Diseases peculiar to Women.
By ROBERT GOOCH, M.D. From the second London edition.
Philadelphia : E. L. Carey and A. Hart, Chesnut St. 1832. 8vo.
pp. 326.

As most of Dr. Gooch's peculiar views on the diseases of the puerperal state are familiar to the medical public, and have been made the subject of discussion in the journals, we shall spare our readers any very extended consideration of them at the present. They will perhaps thank us, however, should any of them be tempted to take up the work, for directing their attention to the 2d chapter, page 105, on the disorders of the mind in lying-in women, in which the author is at some pains to distinguish from phrenitis, a state liable to be confounded with it, but requiring a distinct and very different mode of treatment. In this chapter are related several cases of mania, differing somewhat in their symptoms, and in the treatment employed, but affording, on the whole, ample ground for the conclusion that the lancet should be employed in puerperal mania with considerable caution. In all, the symptoms appear to have occurred within a few days of the delivery. In several of these cases the symptoms resembled those of delirium tremens. Dr. Gooch is less inclined to attribute puerperal mania to simple exhaustion, than to the irritation of the system caused by the unusual excitement of the sexual organs. In this respect he is disposed to class it with the nervous affections incident to menstruation and pregnancy. The repulsion of the milk at its first appearance or by premature weaning, which has been regarded as a cause of mania, is not viewed by Dr. Gooch in that light ; and he states the former to be done in London to an extent and with a degree of impunity, which, except on so respectable authority, we could scarce credit.

" Among the fashionable women of this town," he says, " nothing is so common as not to nurse their children ; the milk comes in about one or two days after delivery, and the breasts become as hard as stones, but not a drop is extracted ; and sometimes by cold spirit lotions constantly applied to the breasts, sometimes by embrocations of oil and brandy, sometimes by poultices, (according to the whim of the nurse, the patient or the medical attendant,) with gentle aperients, the milk is suppressed in a few days. I must have known this done in more than a hundred instances during the first week after delivery, a time much more liable to disordered mind than a later period, and in not one did it occasion puerperal insanity."

We rejoice to add that this unnatural, and, however much may be said to the contrary, unhealthy custom, has not yet gained any extended countenance in this country. The consequence is that our midwifery practice

is more simple, and less varied and extensive—our mothers more fondly attached to their offspring, and our children less subject to disease in infancy and childhood.

Mode of Reasoning on Medical, as compared with other Subjects. By H. BRONSON, M.D. First published in the Christian Quarterly Spectator for March, 1832.

THE author's object in this treatise, though not precisely what might be inferred from the title, is highly important and praiseworthy. It is, by showing the difficulties which encompass the path of medical science, and the obstacles which oppose even the more zealous and earnest in their attempts to arrive at definite principles, to render evident the absurdity of trusting to those, who without the most imperfect general education, and scarcely imbued with the principles of medicine, undertake the cure of disease. We apprehend, however, that the correctness of the conclusion will be admitted by all, independently of the ingenious chain of argument by which it is here maintained.

It is admitted, that in order to practise the art of medicine, an acquaintance with the science is absolutely necessary. Now this science includes, as its branches, anatomy, surgery, physiology, materia medica, and others ; and it may easily be shown that the labor of many years is required before the student can acquire what is to be known upon either of these branches. The conclusion is therefore irresistible, and may be made evident to the meanest capacity, that no man is fit to practise medicine without having studied the science, unless he can adduce evidence of having received that knowledge by inspiration which other men are doomed to acquire by intense labor. Now the question is, what bearing the uncertainty of medicine, or the difficulty of applying all this knowledge when once gained, to the cure of disease, has upon the force of the argument.

The state of things seems to be, that the man who has faithfully stored his mind with the best learning in his profession, who has with equal fidelity watched the aspect of disease by the bedside, and thus made himself acquainted with its physical phenomena ; who has with persevering fidelity heard lectures, and read books, and walked hospitals, and attended private practice, and dissected, and tried experiments, and made post-mortem examinations without number, and all this with the aid of good judgment and sagacity, may, after all, when he comes to apply his knowledge, be deceived, and mistake in diagnosis, or in prognosis, or in treatment, or in all three ; while on the other hand the pretender who has observed little and read less, whose whole knowledge of anatomy would not enable him to distinguish an artery from a vein, if both were lying before him, who knows not the effects of ten articles in the whole materia medica, who has never watched the progress and termination of a

single case of disease in his whole life, who would be confounded if asked to describe the circulation of the blood, and who never troubles himself to consider, far less attempts to judge what internal change corresponds to a certain external aspect of disease ; it will happen, we say, that such a man as this will sometimes give the right name to a disease, will sometimes predict accurately its termination, will sometimes apply a successful remedy. Such we apprehend to be the melancholy fact.

Now what the public are interested to know, is, what is the comparative hazard of employing the learned and the ignorant practitioner. Of the danger of employing the quack, most persons we apprehend are sufficiently sensible ; no man judges him to be infallible ; the patient employs him as he takes his physic, on the ground of the chance there is that he may obtain relief, and knowing the opposite probability that he will be made worse instead of better. He or it has cured others, he or it may cure me, is an argument which applies equally well to Dr. Quack and to Dr. Quack's essence of vitality ; it is a mere change of gender : yet all this is done with the eyes open. The other element in the calculation is, how much nearer the regular practitioner approaches to certainty ; for if it be a mere point in the compass, a mere hair's breadth of difference, this advantage, though highly important in some cases, might not, in all, be so very essential. Now it is precisely on this ground that we object to exaggerated statements of the uncertainty of medicine ; because, if admitted, they go to diminish the very difference in question, and to bring the man of education and the regular practitioner more nearly, as respects his relation to his patients, on a level with the empiric and pretender. Let the requisitions of the profession be placed as high as they may, we believe none will more readily subscribe to them than ourselves. We are willing to admit that there is no branch of physical science with which the physician ought not to be acquainted ; no degree of patience in investigating truth, of vigor in reasoning, and of care in forming conclusions, which should be unknown to his mind. But that, after all this, his treatment of disease will consist of a mere series of inconclusive experiments, in conducting which he can derive little if any benefits from his personal experience, and from the stores of knowledge which he has gained from others—to assert this we hold to be equally unjust and useless. That Dr. Brouson has done this, we do not say ; but we should apprehend that with many readers the tenor of his argument might seem to bear this construction ; and that so far as it did so, the very object he so evidently aims at, that of promoting the dignity of learning and increasing the respect of the public toward the best part of the medical profession, would be interfered with, if not defeated. For the rest, we can only express the satisfaction with which we have read this essay, and we hope that its talented author will continue, by the exercise of a pen which he so well knows how to wield, to maintain the claims of real science against the pretences of ignorance and imposture.

The Physician's First Steps in Professional Life : An Address, delivered at the Medical Commencement in Washington, March 7, 1832.

By THOMAS HENDERSON, M.D., Professor of the Theory and Practice of Medicine. Washington. 1832.

THERE are no species of writing so easy, and none that have a greater effect on those for whom they are intended, than farewell addresses to graduates, either in the arts or in medicine. The occasion is one of deep feeling on the part of the teacher and the taught, and the subjects on which that feeling may display itself are great in number, and of the most interesting kind. The past is full of recollections, diversified always, but generally pleasing ;—an ample field, abounding in attractions to young and enterprising minds, and in obstacles to their attainment,—in the thorn and the rose, the cypress and the laurel,—full of dangers and difficulties, and presenting at its far extremity the smooth walk, and the shaded bower, where a few only are rambling or reposing. All this varied landscape lies in full view before the writer. Many of his pupils, to whom he is personally attached, and in whose fate his own happiness and reputation are in a measure involved, are just stepping on this perilous ground, just setting out on this arduous and hazardous journey. Surely, then, if he have a heart within him, he must be eloquent in reviewing the past, in surveying the opening prospects, and in pointing out to the young travelers the most dangerous places and the easiest avenues ; in cautioning them against the paths that end in ruin, and pointing out those that lead to the high and pleasant grounds beyond. We can imagine few occasions so full of subjects for wise and eloquent discourse, or so full of excitements to it, as that of which we are now speaking. It gives us, therefore, less surprise than pleasure, when we peruse addresses of this sort, written in that smooth and flowing style which bespeaks deep feeling, and replete with sentiments at once touching and instructive.

Hence perhaps our disappointment in the address, the title of which is given above ;—it is clumsy in style, feeble in instruction, without any noble sentiment to touch the heart, or a single strain of glowing eloquence to meet the expectations of the reader, or the occasion on which it was given.

The literary defects of this work are too numerous and palpable to need pointing out. The sentences generally are badly formed, stiff and lame, and words are used by the writer that do not belong, we believe, to any acknowledged language ; and which, if they do, ought forthwith to be expunged. “How are you to render your profession,” says the Dr., “other than the blind groping of empirical *routinism* ?” After stating how strongly he had been tempted to adopt some theory of disease, particularly since the duties of a professorship devolved on him, he says

“a desire to be useful strengthened the temptation, and personal fame urged me to become a *Systematic*.” Yet he glories in having resisted this temptation, which, according to the above statement, would have contributed to his usefulness ! “I am proud,” says he, “of the unpretending yet independent character of an eclectic.”

Again he says to his graduates, “you will soon stand the days-man between heaven and the afflicted.” “The teacher’s first step is to examine well the moral and intellectual materials he has to mould ; then he secures these for a *deliberate period*.” Such are a few specimens of the literary production of a gentleman who holds, in his own opinion at least, one of the highest stations in medicine. “It is only the accomplished physician,” says he, “who is suitably qualified to discharge a duty not duly estimated. I mean the instruction of private pupils.” And again, “In this way you prepare yourselves to fill the highest stations in medicine, I mean professorships in colleges.”

Had we more time and space to devote to this address, we could point out other errors both of omission and of commission more important than those already alluded to. We will merely add the following extract :

“Now, gentlemen, it is as much your duty to be good surgeons, as to treat disease skilfully. If with this sense of obligation you recollect that adequate skill is easily acquired ; if withal you look to personal motives, how near and easy the path is to surgical fame, and how brilliant that fame is, I do not see why you should not all be useful and successful surgeons.”

The distinction here recognised between the duties of a surgeon and the treatment of disease, is altogether novel ; but the greatest mistake is in holding out to young men the idea that that task is easy which is unquestionably beset with difficulties—that surgical fame is easily acquired, when in truth it is the uncertain fruit of intense and patient labor. It requires no spirit of prophecy to predict, that failure and disappointment await those who shall attempt this lofty eminence with those ideas of its pathway which are thus held out by their Professor.

Whole number of deaths in Boston for the week ending May 25, 31. Males, 18—Females, 13.
Of croup, 1—measles, 5—throat distemper, 1—marasmus, 1—dropsy, 1—consumption, 3—scarlet fever, 3—apoplexy, 1—dropsy on the brain, 2—child bed, 1—lung fever, 1—unknown, 1—convulsions, 1—delirium tremens, 1—bowel complaint, 1—brain fever, 1—old age, 1—atrophy, 1—canker, 1.

ADVERTISEMENTS.

NEW MEDICAL WORK.

CARTER & HENDEE have this day received, An Account of some of the most important Diseases peculiar to Women. By ROBERT GOOCH, M.D., Author of a Practical Compendium of Midwifery. In 1 vol. 8vo.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.] WEDNESDAY, JUNE 6, 1832. [NO. 17.

PRECAUTIONS IN PRESCRIBING MEDICINES.

On various Circumstances important to be attended to in Prescribing Medicines. By WILLIAM HOWISON, M.D., F.R.C.S., Lecturer on Mat. Med. at Edinburgh.

INDEPENDENTLY of a knowledge of disease and of its treatment, much of the success of the medical practitioner depends upon various circumstances connected with the form in which medicines are administered, and the causes which regulate their action upon the animal economy. In prescribing a medicine, even the best qualified for fulfilling the purpose wanted, it becomes necessary to take into consideration the following important circumstances, and to regulate it by them:—

1, the age of the individual; 2, the sex; 3, the temperament; 4, the habit; 5, idiosyncrasy; 6, situation in life; and 7, effects of disease on the system before the dose can be properly determined upon, and as far as the medicine itself is concerned, the most agreeable form of administering it—whether it should be given alone, or combined with other ingredients, and how far these are likely to impede or facilitate its operation.

Attention to all these circumstances is necessary to prevent the errors which so often occur in drawing up prescriptions; for nothing distinguishes the well-educated medical practitioner, or tends more to the future recovery and comfort of his patient, than the nature of his prescriptions. Doses of medicine are not reducible to any general rule, from their general similarity of operations, or any other circumstance; they are therefore specific with regard to each other.

I will now proceed to make a few practical remarks upon each of the circumstances already alluded to, as affecting the action of medicines upon the animal economy, considering them in the order which I have laid down above.

AGE.—I commence this section with the table originally drawn up by Gaubrus, and copied from him by all successive writers to the present day, and which possesses no equal for perspicuity and correctness.

For an adult, suppose the dose (of any medicine) to be 1 drachm;

Under 1 year will require	1-12th or 5 grains.	14	1-half or 1-2 drachm.
2	1-8th or 8 grains.	20	2-3ds or 2 scruples.
3	1-7th & a half or 15 grs.	Above 21, the full dose	one or 1 drachm.
4	1-4th or 15 grains.	65, the inverse gradation of the above.	
7	1-3d or 1 scruple.		

From infancy to manhood, a larger dose of any medicine is required to produce its effects in proportion to the advance in life. From manhood to old age there is a similar gradation with regard to diminution of dose, though in a much less proportion than that which regulates the increase. In the two extremes of life, childhood and old age, the animal economy is weak, and susceptible of all impressions; whilst during the intervening period, or what is termed adult age, it remains stationary. From infancy to adult age, therefore, the dose of medicine should gradually increase. During adult age it should remain the same, and this is what is given in all medical works as the standard dose; whilst from adult up to extreme old age, it must again gradually diminish in quantity, but not in so rapid a ratio as it increased from infancy to old age.

With regard to medicines, however, it is of consequence to observe, that there are many which do not act with greater violence in a large dose than in one comparatively small. *Ipecacuanha*, as an emetic, is more certain in its operation when given in a large dose than in a small, and is not more violent. The same may be said of *aloes* and others. In fact, almost all the medicines included under the classes of emetics and purgatives, come under this observation. In the action of an emetic or purgative upon the animal economy, it seems probable that that portion of the medicine which comes into immediate contact with the internal villous coat of the intestinal canal, stimulates it to action, when the remainder will be thrown off or evacuated, without producing any further effect. From a large dose of such medicines, therefore, disagreeable effects are not to be apprehended. Whereas, when too small a dose is given, no effect is produced, the remedy remains in the intestinal canal, acting as an extraneous body, aggravating the symptoms which it was intended to relieve, causing the loss of valuable time. This remark applies to the generality of medicines.

SEX affects to a considerable extent the operation of medicine upon the animal economy. Although some women possess nearly as much bodily strength and vigor of constitution as the majority of men, yet the greater general delicacy and sensibility of the female frame, at every period of life, require not only caution in apportioning the doses of active medicines, which should be less than those ordered for men of the same age; but the medicines themselves should be such as are likely to fulfil the indications required without much violence. The state of the uterine system must be attended to in prescribing for females. Drastic purgatives, aloetic ones, and astringents, may be avoided during the flow of the catamenia.

TEMPERAMENT affects the operation of medicines upon the animal economy. By temperament is understood a predisposition, derived from original conformation, to be affected in a more peculiar manner by external causes acting on the system; and much laborious investigation has been bestowed in distinguishing the different temperaments, or original conformation of body, and the diversities to which they give rise. It is undoubtedly true, that persons of different temperaments are differently affected by the operation of medicines. Stimulants more readily affect those of a sanguine than those of a phlegmatic temperament, and therefore smaller doses are required. In the phlegmatic, also, the bow-

els are generally torpid, and require both descriptions of medicines, and such doses of them to excite the proper peristaltic motion, as would induce either inflammation, or be followed by an alarming state of debility, were they administered to those of a sanguine temperament. Hence the necessity of attending to this circumstance in prescribing.

HABIT or CUSTOM exerts a most important influence upon the operation of medicines. Persons addicted to the use of spirits, narcotics, and other stimulants, are less easily excited at an after period, both by medicinal stimulants and narcotics; and the same takes place with respect to purgatives. A knowledge of the habits of the patient, as far as the exhibition of all these is concerned, is absolutely necessary for the prescriber, many people being in the almost daily habit of taking these remedies without consulting the practitioner. In the first of these cases, larger doses of stimulants and narcotics are required to produce the ordinary effects of these remedies; but in the second a change of the purgative usually taken will generally be sufficient. In the employment of medicines which require to be long continued, the beneficial effect is soon lost if the dose be not increased.

In a few cases, the reverse of the above will be found to hold good, as, for example, with regard to the saline cathartics. As an example of the first of the cases alluded to, I may mention opium, one grain of which will produce upon an adult, unaccustomed to its use, all the effects of a narcotic; whereas ten grains will not do so at an after period, in the same individual, when long accustomed to its use. The first thing, therefore, that the medical attendant must do, upon being called in to a patient, previous to prescribing opium, is to ascertain whether or not he be in the habit of taking that medicine, and to what extent. The dose must be regulated accordingly. With regard to the saline purgatives, as sulphate of magnesia, the dose requires to be diminished after long use, half an ounce at last producing effects equal to one ounce at first. The same remark applies to castor oil.

SITUATION IN LIFE has a considerable effect in regulating the action of medicines upon the animal economy. Individuals of the higher ranks—and this applies particularly to females leading a sedentary life, little exposed to air, exercise, or variations of weather, not compelled to gain their bread by their own industry—are much more susceptible of the action of medicine, and of course require milder ones, and in smaller doses, than individuals belonging to the lower orders. In other words, a female of the lower orders requires as strong medicines, and as large doses, to produce equal effects, as a male belonging to the higher ranks, and *vice versa*. In the higher ranks, I have always found the common aloetic pill sufficiently active as a purgative; whereas, in the lower, it has generally disappointed me, proving weak or inert, so that I have for many years past been obliged to give it up, under such circumstances having recourse to the compound colocynth pill, which has always answered my expectations. The practice of dispensaries, hospitals, &c., and that confined to the lower ranks of life, as far as regards medicines, is considerably different. Upon a similar principle, the practice of different countries varies greatly, and that which has been followed by the practitioners of a place for ages, must always be superior to the innova-

tions of the stranger. The population of France, Italy, &c., enjoying a settled, warm, southern temperature, and living principally on fruits, vegetable diet, &c., cannot bear the active medicines and practice adapted to the inhabitants of Great Britain, Russia, and other northern regions, exposed to every variety of weather, living upon animal food, and accustomed to the use of spirituous liquors. A wandering life passed in these countries firmly establishes the accuracy of this remark upon my mind. The treatment of syphilis in southern and northern latitudes,—its yielding without mercury in the former, whilst it absolutely requires its active ministration in the latter for its extirpation, may be given as illustrations of the above.

DISEASE exerts an influence on the action of medicine in the animal economy very important, the susceptibility to external impression and to action being much varied in morbid affections, and the operation of medicines of course being modified by such variations. The state of susceptibility being in general different when it varies much from that healthy standard, the doses of the medicine administered are regulated accordingly, and thus it is obvious does not admit of much general observation, as being entirely dependent on the nature and state of disease. I may mention, however, two striking extremes. In the diseases arranged under the class *febres* and *exanthemata* of Dr. Cullen's arrangement, all characterised by febrile action, the animal economy is remarkably irritable, and susceptible to stimuli; the mildest medicines, and in the smallest doses, produce powerful effects. In the diseases arranged under the class *neuroses*, of the same arrangement,—mania, melancholia, hypochondriasis,—all characterised by stupor and insensibility to stimulants, the most powerful medicines, and in the largest doses, are required to produce even moderate effects.

Besides these guides now mentioned in the administration of medicines, the choice of the practitioner must occasionally depend upon the circumstance of the patient being more or less immediately under the practitioner. Then, if the patient can be seen every day, or frequently, by the practitioner, the most active medicines which the nature of the case requires, should be chosen. But, if he cannot be seen, or is not resident in the same place, the practitioner should choose a remedy of the same class, but less likely to have a violent effect. Thus, in prescribing for intermittent fever, where a patient cannot be visited every day, or oftener, the Peruvian bark should always be preferred to the arsenical solution. In dropsical complaints, the supertartrate of potash, to the digitalis or elaterium.

In apportioning the dose of any very active medicine, it is of the greatest moment to determine the relative degrees of power between the system and the remedy, and to know to what extent the latter is likely to be carried consonantly with the power of life to resist it. Thus, after a patient has been exhausted by protracted or severe suffering, a dose, different or milder than one at the commencement of the disease, becomes necessary.

THE VARIABLE ACTIVITY of a medicine should also be appreciated, and the practitioner would act judiciously, if he were to reduce the dose, should it be a very considerable one, whenever a fresh parcel of a medi-

cine is commenced, especially of the powders of active medicines, liable to deterioration from being long kept,—those of *cicuta*, *digitalis*, &c.

THE TIME OF DAY at which remedies should be administered, likewise deserves attention. Evacuating medicines ought to be administered late at night or early in the morning. It would seem, that during sleep the bowels are not so irritable, and consequently not so easily acted upon, which allows time for the ready solution of the substance. The same observation applies to alterative and other medicines, which are liable to suffer from vexatious irritability of the bowels. It is on this account eligible to exhibit *guaiacum*, *pil. hydrargyri*, &c., when they are not intended to purge, at bed-time. On the other hand, when the effects of a medicine are likely to be lost by perspiration, as is the case with diuretics, many of which are by external heat changed into diaphoretics, it becomes a question with the judicious practitioner, whether he cannot select some more favorable period for their exhibition. Medicines which are in the form of a pill, as they are liable to be long kept in apothecaries' shops, and of course to become remarkably hard, should generally be administered at bed-time, to give time for the gastric juice and other secretions of the intestinal canal to complete their solution. Under these circumstances, they will pass through the whole tract of the bowels as inert bodies, disappointing the intentions of the practitioner and patient. *Aloes*, administered in *powder*, operates in from two to three hours; given in *pill*, it requires from eight to twelve hours to produce its full operation.

IN FEVERS, it is of importance to consult in all respects the quiet and comfort of the patient. Dr. Hamilton, in his admirable work on purgative medicines, justly observes, that on this account the exhibition of purgatives should be so timed, that their effects may be expected during the day. In some cases, the time of administering the remedy must be regulated by the stage of the disease. In fevers, a dose of opium will either increase the heat of the fever, augment the thirst or restlessness, or occasion tranquillity and sleep, according to the temperature of the body at the time of its administration. For this reason, Dr. Currie advises us not to give the evening dose of opium in typhus fever till very late, or about one or two o'clock in the morning, when the heat is subsiding, and moisture coming on.

EMETICS, administered for the cure of the slighter cases of pyrexia, should be given in the evening, as their operation has a tendency to sleep and diaphoresis, which it is useful to promote. Remedies that require to be absorbed, will probably be more efficient in the morning, after sleep. The old custom of giving medicines in the morning, fasting, is not quite so absurd as some modern practitioners have been led to suppose. A weak or mild medicine, taken two hours before breakfast, upon an empty stomach, will operate equally powerfully as a much stronger one will if taken at a later period, or upon a full stomach. Every practitioner must be struck by the truth of this remark, when administering mineral waters, as those of Cheltenham or Harrogate.

THE INTERVALS between doses of medicine must be regulated by the nature of the remedy, and that of the object which it is intended to fulfil, and whether it be desirable or not that the last dose should support

the effects of the preceding, or whether there be any fear of a re-action or collapse taking place after the effect of one dose has subsided, unless immediately repeated. Thus the effects of diffusible stimulants, ammonia, or of ether, are very evanescent; they should therefore be repeated at short intervals. The same may be said of diaphoretics. We ought not to allow the periods between the doses to be so remote as to occasion any striking abatement in the impression. So opium, when stimulant operation is required, as in diseases of debility, fevers of the typhoid kind, &c., should be given in small doses, at short intervals, so that it may produce a uniform and regular state of excitement. But when the object is to mitigate pain, allay irritation, and produce sleep, it ought to be exhibited in full doses, at distant intervals. There is a caution, also, which it is very necessary to impress upon the practitioner, respecting the power which some medicines possess, of accumulating upon the system. This is notorious with regard to lead and mercury. Dr. Withering has observed, that the repetition of small doses of digitalis, at short intervals, till it produces a sensible effect, is an unsafe practice, since a dangerous accumulation will frequently take place, before any signals for forbearance present themselves.

From a COMBINATION of medicines, beneficial and mild effects result, which would not be produced by any of them given separately. From two distinct emetics, combined together, or from two distinct purgatives, an effect results, which is far more certain and mild, than from either of the two administered separately; and the same holds good with other medicines.

In prescribing medicines, the principal object to be kept in view is simplicity, and this was greatly neglected in the prescriptions of former days, and is even so still in those of surrounding countries. This is strongly remarked by Dr. Boyce, in his *Sketch of Medical Knowledge at Constantinople*, recently published. Dr. Paris informs us that he was told, by a medical practitioner in the country, that the quantity, or rather complexity, of the medicines which he gave his patients, for there never was any deficiency in the former, was always increased in a ratio with the obscurity of their cases. "If," says he, "I fire a great profusion of shot, it is very odd if some of them do not hit the mark!" Sir Gilbert Blane, in his *Medical Logic*, has given us a similar anecdote. A practitioner, being asked by his patient why he put so many ingredients into his prescription, is said to have answered, more facetiously than philosophically,—“In order that the disease may take which it likes best.”

With regard to the directions in a prescription, how many medicines are to be taken, they ought always to be written distinctly, in the vernacular (English) language. In prescriptions, perspicuity is our first object; it is not here that a medical man is called upon to display his learning; and by clearness,—by writing the directions distinctly,—he puts it out of the power of any individual to injure his reputation, or to endanger the safety of the patient.—*The Lancet*.

EXEMPTION OF INFANTS FROM CONTAGION.

On the Exemption of Infants from Contagion, particularly with reference to Vaccination. By JOHN MURRAY, M.D.

Cape of Good Hope, August, 1831.

CHILDREN were chiefly the subjects of its attack (Scarlatina), but many grown-up persons of both sexes got it also, some of whom were above forty years of age, and in them it was often very severe : *infants*, however, seemed generally to enjoy the privilege of exemption from its attack, as if their systems were insusceptible of the morbid effect of the contagion. Of two families who fell under my particular observation, the youngest of each (both babies in arms) entirely escaped, although all the other children were attacked ; and I know a great many other instances of similar exemptions. I myself did not see any child under a year old with the disease during the whole epidemic of 1830 ; no such case occurred amongst the military, and I have not been able to hear of more than three or four instances, in civil practice, where infants at the breast became affected :—they were all upwards of eight months old, and the disease in them was not of a severe nature.

This greater exemption of infants is a circumstance which I think has not been particularly noticed by writers on Scarlatina ; but it is an important fact, which I have to point out for further observation. Neither Huxham nor Fothergill advert to it. Dr. Withering, in his observations on Scarlatina, as it appeared at Birmingham in 1778, states, that it seldom occurred in children under two years of age : and Dr. Sims, in his full account of this disease in London in 1786, mentions, that he saw but one child at the breast who had it, and that but slightly. I am inclined the more, however, to believe in the insusceptibility of infants to the Angina Exanthematica, as the same has been found to obtain in other contagious diseases ; for example, Dr. Hennen mentions, on the authority of the hospital surgeon, Mr. Naudi, that in the plague at Malta, in 1813, several instances occurred, in which children sucked their dying mothers without contracting the disorder from them ; and Mr. Kite, of Gravesend, in his paper on smallpox, in the “ Transactions of the Medical Society,” states, that “ he had occasion frequently to observe that very young children had been repeatedly inoculated, and for several weeks constantly exposed to the worst kind of smallpox, without any effect ; that afterwards the measles became unusually rife, of a putrid nature, and much more contagious than he ever before or since observed it ; that he attended in several families where the young infants (particularly when under two months) were the only part of the family that escaped the disease, although exposed a considerable time to the infectious air, and laying all the night close to other children passing through every stage of the complaint, and consequently inhaling into their lungs the very essence of infection ; nay, he had been informed of more than one instance, where, in addition, the mother had the disease, and the child, although constantly in her arms, breathing the air reeking with putrid particles,

and sucking the milk impregnated with the disease, strongly, as we should think, has for months withstood the infection."

From reflecting on this degree of insusceptibility of infants to the influence of contagion, I have been led to consider, that it may perhaps be owing to the circumstance of persons being vaccinated in infancy, while their constitutions are but imperfectly susceptible of the action of the vaccine virus, that vaccination has been found not to prove a perfect preservative against the influence of smallpox contagion.

It is most usual to vaccinate children within three or four months after birth, with a view to protect them from smallpox during the rest of life; but the instances in which it has failed to afford perfect protection, have of late years been so numerous in different countries, as to have caused considerable distrust in the minds of the public relative to the utility of the operation; and I believe there are few intelligent parents who do not now entertain more or less anxiety and apprehension about their children on this score, when they send them out into the world.

These failures of vaccination have been attempted to be accounted for by medical men in various ways, such as that the operation might have been improperly performed, or performed when the infant was laboring under some other eruptive disease, or that the course of the vaccine disease might have been interrupted by the pustules having been punctured or broken, or that the virus might have been of a spurious description, or that time had diminished the protecting virtue of vaccina, or that in certain cases of failure it might have been owing to some idiosyncrasy or peculiarity of constitution in the patient himself; but it must be confessed, that all these reasons are unsatisfactory and untenable in the majority of cases.

I do not know if the idea be new or not, which I have here broached, that the failures may probably be attributed to the operation being performed at an age when the constitution is insusceptible of undergoing the regular process necessary to preserve it from the influence of variolous contagion; but, from the circumstances I have just mentioned, I think it is likely to be as correct as any other I have yet known brought forward.

I have not an opportunity of ascertaining whether, in the late variolous epidemics in Europe, any difference was found in the anti-variolous protection afforded in the cases vaccinated at the age of a few months, and in those in whom the operation was not performed till after three or four years of age; but I feel anxious that this subject should be investigated, as it may be found to elucidate many of the obscure points connected with the subject of the protection in some, and the complete failures in other cases, that have hitherto eluded explanation, and I the more hope that it may prove correct, as we should then be enabled to prevent failures hereafter. As connected with this point, I have further to add, that I have known a strong effect to be excited in the constitution of adults from re-vaccination; and reasoning on this circumstance from analogy, we should suppose it could not happen if their system had undergone the proper vaccine action from the primary operation; and if it be granted, as I believe it now is, that there is no just ground for the opinion that the prophylactic virtue is altered or lost in the constitution after a certain time from the date of vaccination, then I think that my supposition is

greatly strengthened by another circumstance, which is, that when re-vaccination has been instituted in adults, it has been found to preserve them more effectually from smallpox and its modifications ; of this, a good instance came within my own knowledge, of a family in Scotland, which escaped infection through this means, when a variolous and varicellous disease was raging epidemically all around it.

Were my children to leave this colony for England, or indeed for any place where there was a chance of their being exposed to smallpox, I should certainly have them all re-vaccinated, by which means I should consider them to be rendered more secure against the influence of its contagion.—*Medical Gazette*.

CHOLERA AND TYPHUS FEVER.

On Cholera and Typhus Fever. By JOSEPH COMSTOCK, M.D., of Lebanon, Con.

Communicated for the Boston Medical and Surgical Journal.

THE excitement and terror of the two worlds,—the *old* and *new*,—respecting Cholera, has induced the medical faculty to reflect, investigate, and write, upon the disease, even when 3,000 miles distant. This is perfectly judicious and philanthropic. Every particle of light, which can be shed upon a disease so terrible, ought to be put in requisition, so that the monster, should it appear, may be met at the threshold, with appropriate weapons in readiness and complete order.

Cholera, or, as it is vulgarly called, *Cholera Morbus*, is with us no new disease. What would be *new* to most of us, who, like myself, have been in the practice of medicine for even thirty years and upwards, would be, to lose a *single patient with it*.

We have, however, never known a case of the disease exactly like those of Europe and the East. In those countries, the worst cases appear to be a rapid and total nervous annihilation. In these extreme instances, there is no re-action of the system, and no time for such re-action.

The first stage is a dying state,—the second stage is death itself ! An eye-witness says,—“ Within twenty minutes of the attack, the vital functions become utterly paralysed, pulsation ceasing at the extremities, animal heat becoming almost wholly extinct, the surface of the body, lips, tongue, mouth, and face, assuming a deadly, cadaverous, and leaden tinge,—to the touch cold as marble.” * * * “ Boiling water, spouted on the extremities, fails to produce a momentary blush, much less a vesication.”—This, we are told, “ is the character of Cholera of the worst type, such as has appeared in Sunderland, Houghton la Spring, Gate’s Head, Newcastle-on-Tyne, and other parts of the north of England.”

We are further told, that *post-mortem* examinations have done little towards eliciting the pathology, or mode of cure, of this terrible epi-

demic.* These features and facts are certainly appalling ; but it is our imperious duty to know the worst, and to be prepared for it.

Perhaps the time has arrived, in which we shall be able duly to appreciate the labors of our chemical brethren, who have been separating the most active principles of our most active medicines.

Opium, of itself, would appear to be too powerless to meet this Goliath ; but its active and concentrated principles may be found equal to the emergency.

Morphine, a remedy so potent that one sixteenth of a grain is a dose, promises something. Where even this small quantity cannot be swallowed or retained, it acts externally in larger quantities, as in one, two, or more grains, the skin being denuded of its cuticle in the first place. When vesicatories fail of accomplishing this, it may be done by the lancet. The patient may, in fact, be inoculated with this powerful narcotic and stimulant, or it may be used *pro injectio*, with diluted alcohol and other stimulants, such as a decoction of capsicum, a solution of pepperine, tinct. lytta, or spt. turpentine, if injection can be retained.

But to discover some prophylactic,—some supporting, invigorating plan, which would render the human system wholly or partially invulnerable to the impressions of the potent enemy,—is the grand desideratum. Opiates, in some form or combination, would appear to promise most for this all-important purpose.

Supposing that the epidemic should visit BOSTON, or any other of our cities or towns, those in health should be provided with some of the preparations of thebaic, and, under the direction of their family physician, make such use of them as age, sex, constitution, and idiosyncrasy, would seem to justify.

Small doses of opium might be taken, in substance, in form of pills, or laudanum in combination with ol. of peppermint, ol. of cinnamon, ol. of lemon, spt. lavend. comp., aq. ammonia, vol., camphor, capsicum, pepperine, quinine, or Huxham's tincture ; or the citrate or sulphate of morphine might be used, in combination with either of these articles, or clear, as judgment, or even fancy, might dictate.

Those of the profession who saw some of the worst cases of spotted and typhus fever, appropriately termed by my friend, Dr. MINER, *typhus syncopalis*, which prevailed from 1806 to 1814, and in some places after the latter period, know something of a disease which approximates more nearly to the eastern cholera than anything that has been known in the United States. Confounded, in my own practice, with the rapid tendency of that disease to speedily run the patient down to the lowest state of debility, and thus to prove fatal,—confounded, also, by the inefficiency of all that I found written upon it, except by a few of my own contemporaries in this country,—I resorted to a practice the most deci-

* One important fact has, however, been discovered by dissections. It is what I call the *death of the arteries*, they being found empty. This death-state of the arterial system has been discovered a little before death. This discovery was made at Berlin, where, for the purpose of *transfusion*, the brachial artery was denuded, opened, and found empty ! It is a disheartening discovery, because its causes remain undetected in the dead subject, by the most skilful anatomists. One of the most eminent of this class, the late Dr. WISTAR, of Philadelphia, informed me, whilst I attended his lectures, that for six years he had studied and investigated this phenomenon without being able to satisfy himself of its cause. Connected with this subject, I have one important *quere* to propose to the anatomists of Boston and elsewhere, viz. :—*Can a colored injection, thrown into an artery of a living animal, be detected in the veins of that animal ?*—In the dead subject, it is well known that it cannot.

dedly stimulant, with the happiest effects. Five hundred and seventy-five cases of this epidemic and its congeners fell under my care, from 1810 to 1814, both inclusive.* Among a great variety of cases, I have those of three sisters, out of ten brothers and sisters who had it, particularly in my recollection. One of these was a little girl in her 10th year. I found that wine did not reach her case, with all the aromatics and stimulant additions which I could get down. In this stage, she was visited by me with one of our eminent professors, who told me, as we came out of the house, that *I should lose my patient*.

I then resorted to alcohol, in the form of strong W. I. rum. I told her mother, who was a most excellent nurse, that she must get down enough to warm her child, let it take what quantity it would. A pint of this article, diluted with water and dulcified, was given and retained the first 24 hours, and as much or more for several succeeding days, with some wine and opiates. She was saved.

The second was her sister, in her 13th year. The symptoms of extreme exhaustion, coldness of her lower limbs, which reached above her knees, indicated speedy and seemingly inevitable dissolution, and this under the use of a quart of wine a day! Some good French brandy was then resorted to, and the same quantity of wine continued. She took for the first 24 hours a whole quart of wine, and a pint and three gills of the brandy, with bark, aromatics, and opiates; and for several successive days these quantities were not diminished, except the brandy only, and that not more than a gill. She retained these enormous quantities, never ejecting them from her stomach, and was also cured; and, I may add, without any detriment to her constitution. She afterwards became a healthy young woman, got married, and with her husband came to visit me at my present residence in Connecticut.

The third sister was a young married woman, who lived five miles distant. The epidemic of which we are treating sometimes assumed the form of cholera. This was the case with Mrs. H. The puking was excessive; the diarrhoea not quite so urgent. I, however, at first despaired of her recovery, because, with alarming debility, her stomach did not permit the retention of any remedy whatever. Her husband was a merchant and grocer, and had in his store good spirits of fourth proof. With the addition of laudanum, enemata of this article were resorted to, and happily retained. Nine gills of the spirit, a little diluted with milk and water, were administered in speedy succession, one gill each time, with about one drachm of laudanum. She was likewise saved, and her recovery from the most frightful state of exhaustion and nervous derangement was complete.

Although the free and liberal use of ardent spirits was found thus useful as a *remedy*, and may be equally so in cholera, yet, as a *prophylactic*, I consider them hazardous; for I found that no class of persons were so liable to die with typhus, as those whose constitutions were broken down by intemperate drinking.

* The writer at this time resided at S. Kingstown, R. I.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JUNE 6, 1832.

ACTION OF EMETICS.

AMONG the means which the medical art possesses of acting on the human system, none, perhaps, is more decisive, and more powerful, than the administration of substances calculated to produce vomiting. If we review the serious diseases to which the human frame is subject, taken simply with regard to their number, we shall probably find a large proportion in which this remedy is indicated; and, when the comparative frequency of these and the remainder is taken into view, the importance of emetics, as a class of therapeutic agents, is still more manifest. It becomes, then, a point of no small interest, to consider what indications this class of remedies may be judged capable of fulfilling;—in other words, what may fairly be set down as effects of emetics on the stomach and general system, by which we are enabled to remove disease.

In considering this subject, it might be thought necessary that the expression, *emetics*, should be more exactly defined, and that the inquiry should be directed to the action of single substances of this class, either solely, or at least in succession. But the truth is, the specific differences between the action of the different emetics in common use, is in small proportion to their activity as a class. Ipecacuanha and antimony, for instance, if given in sufficient doses to cause vomiting, of which effect, in ninety-nine cases in one hundred, either of them is capable, produce effects on the system, not indeed strictly analogous, but still agreeing in those points in which the action of both is most important and interesting. It is for this reason, no doubt, that the emetic substances actually employed are so few in number; a circumstance which, while it simplifies this branch of practice, renders it also more easy to arrive at a distinct and satisfactory theory.

The first and most obvious effect of artificial vomiting, is to discharge from the stomach any foreign substances which happen to have been introduced into that organ. In fact, the effect of an emetic, administered when the stomach is surfeited with food, is sometimes limited to fulfilling this simple indication. In this respect, the *vis medicatrix* is often remarkably displayed, and nature herself provides that the direction and amount of the effect produced shall be just that which the circumstances of the case happen to render necessary. This is often peculiarly manifest in children, in whom the exhibition of a powerful emetic is often found to limit itself to a single act of vomiting, which brings up the con-

tents of the stomach, and leaves the system to all appearance as little disturbed as if the ejection of these foreign matters had been the spontaneous act of the organ.

2. A second effect of emetic substances, is a change in the action of the hepatic organs, by which a quantity of bile is thrown into the stomach, and thence rejected by vomiting. This would seem to prove, that the antiperistaltic action, which is excited under these circumstances, extends to the duodenum, and that the bile which is there accumulated is in consequence thrown up. But, beside this, there can be no doubt that the liver is excited to increased action, and that, in most cases, where bile is discharged, only a small proportion can be viewed as having previously existed in the duodenum. It may be doubted whether the action of an emetic be ever limited to a simple emptying of the duodenum from the bile previously accumulated there; but this point is not susceptible of direct proof.

3. Of the more remote effects of emetics, some are produced in the alimentary canal itself, while others are exerted more generally on the system. The most remarkable circumstance in the action of emetics on the stomach and bowels, is their tendency to counteract at one time the very state which at others they are calculated to produce. It was remarked, as a singular fact, by Celsus, that vomiting opens the bowels when costive, and binds them when relaxed. Its action in the first mode we have less opportunity to observe than was enjoyed by the ancients, by whom the remedy was employed on much slighter occasions; but it is a matter of familiar observation, that what is termed hepatic jaundice, which seems to be owing to a torpid state of the liver, and of which constipation is the leading symptom, often disappears under the use of this remedy, as by a charm, when cathartic remedies have been repeatedly tried in vain.

A somewhat obscure state, usually termed bilious, attended with nausea, loss of appetite, and costiveness, which with many persons recurs regularly at a certain season, is also most effectually relieved by artificial vomiting. The effect exerted by this remedy in the opposite state, or that of increased peristaltic action, is equally remarkable. A diarrhoea, which proves obstinate under the best regulated diet, and resists the action of cathartics, astringents, and sedatives, will often be found to yield without delay under the judicious administration of an emetic. It is not easy, without a somewhat liberal use of hypothesis, to reconcile effects apparently so contradictory. In the last case, it would seem that the peristaltic action once inverted, the irritability of the muscular texture receives a powerful check, and that, by the tendency of extremes to produce each other, of which so many examples are presented in the system, the fibres return to a state of comparative torpor.

4. A more remarkable proof of the tendency of emetic substances to produce a state of things the reverse of that pre-existing in the system, is found in the fact, that vomiting itself, which has continued obstinate in spite of other remedies, is not unfrequently relieved by this means alone. Of the truth of this position, experience furnishes abundant proof. The nausea and vomiting, which follows upon surfeit after the offending substance has been rejected, can often be relieved only by full vomiting; and the irritability of the stomach, with which fever sometimes makes its onset, is usually dissipated by the same means. Among the million remedies which have been proposed for the cholera, its treatment with full vomiting at the outset is recommended by as many, and as striking instances of success, as perhaps any other. We intend this, indeed, principally of the disease in its sporadic form; for cholera, when epidemic, seems to acquire a prostrating power in its first onset, which almost forbids any hope of success from so harsh a remedy. Cases, however, are not wanting, to show that even in this terrific form of disease, the prompt exhibition of an emetic will sometimes arrest the symptoms. This practice is indeed most likely to be effective when the case appears to have been induced immediately by imprudence in diet.

An interesting paper, on the employment of emetics in cholera, will be found in the April number of the *Edin. Journal*, by JAMES HALL, Surg. R.N. The author's opportunity of observing the disease, arose from the circumstance of his having charge of several ships of war, lying in ordinary in the river Medway, in the fall of 1831. The occurrence of the disease in these vessels, which had previously been healthy, is supposed by the author to have been connected with the arrival of several vessels from Riga, where the Asiatic cholera was then raging. However this might be, the first case occurred in July, and, between this and October, 120 cases occurred in a population of 700 persons. Many of these were of course mild; many, however, were severe, and a few are described as having presented that peculiar livid aspect, which has been regarded as diagnostic of Asiatic cholera. On these points, however, we can convey no information to our readers by quoting insulated facts; the amount of the disease can only be judged of by reading the cases, which appear to be judiciously and candidly stated. Considering nothing but their number, it is certainly remarkable that not a single case proved fatal. All, without exception, were treated with an emetic of ipecacuanha, repeated till full vomiting was occasioned, followed up by an opiate, and subsequently a cathartic. The emetic, he observes, was said by the patients to have operated like a charm. "However violent the purging had been,—however incessant the nausea and retching, both ceased after the vomiting." Whatever may be thought of the author's theory in regard to the origin of this disease, the result of his practice certainly merits notice.

A somewhat bolder use of this plan of practice, pursued by a physician in the department of Saratov, in Russia, during the prevalence of epidemic cholera there, is mentioned by Lichtenstadt. On the first appearance of the disease, eight grains of antimony were exhibited in a glass of water. The vomiting and purging thus produced, it is observed, carried off the bile from the stomach and bowels, and on this operation followed decided improvement. This was the treatment in the more violent cases. In those less severe, four, or even two, grains were given; this was followed up with other remedies, calculated to obviate the various symptoms as they presented themselves; none of these, however, are particularly remarkable. This practice is stated to have been attended with favorable results.

The more general effects, on the system, of vomiting artificially excited, will be the subject of consideration in a future number.

Poisoning by Goose Grease.—On the second of April, 1829, Dr. Siedler was called to attend MM. H——, and their children. On his arrival, he found the two brothers H——, one aged thirty-one, the second twenty-eight years, and the two children of the first, one a girl, æt. four, and the other a boy, æt. two and a half, all presenting the following symptoms:—cold sweat, anxiety, vertigo, general paleness and prostration of strength, eyes sunken and pupils dilated; burning pain was felt in the lower part of the belly, increased by pressure; violent vomiting, succeeded by ardent thirst, for which the patients had drunk large quantities of milk, which was thrown up without producing any effect; tongue dry, involuntary discharge of urine and fæces.

The eldest brother was insensible for six minutes; his respiration was scarcely visible, his pulse imperceptible, and the heart's action exceedingly weak. The second brother had vomited blood several times, but he experienced less abdominal pain than the other. In the little boy, the globes of the eyes were turned upwards, the lips livid, and the pulse scarcely sensible. Lastly, the symptoms in the little girl were the mildest of all. M. Siedler suspected at once, that these accidents were occasioned by the use of a certain quantity of goose grease, which had been employed in the preparation of some meat, of which the four patients had eaten shortly before the symptoms began. An emulsion, containing hyoscyamus, was prescribed, and on the 9th of April all had recovered.

The vomited matters were subjected to chemical analysis: they were strongly acid, but contained no metallic poison; but the following facts induced Dr. Siedler to attribute the illness to the effect of sebatic acid. The lady of the house had made use of goose grease to dress some veal, and all the persons who partook of the dish fell quickly sick. The lady herself, who had barely tasted it, felt it so disagreeable that she took no more. None of the grease which was suspected to have caused the accident remained for examination, the pot which contained it having been entirely emptied and cleaned out; but, on examining the same kind of grease contained in three other pots, it was found to exhale a strong repulsive odor, and it reddened strongly blue paper tinged by turnsole. Three ounces of this grease were given to a vigorous, well-formed dog;

an hour after, his extremities became violently convulsed ; he cried piteously, he refused to eat, his eyes were suffused, pupils dilated, skin cold, and arterial pulsations scarcely perceptible. In this state he continued for thirty hours, after which he slowly recovered.—*Hufeland's Journal*.

New Method of Destroying Rats.—M. Tenard lately read a note to the Academy of Sciences in Paris, in which he recommends the following as a simple and effectual method of destroying rats :—If there be several of their holes, begin by closing them up ; those in their most frequent routs will soon be re-opened, and in this way their chief resorts will be discovered. Introduce into one of the apertures (again closing the others) the mouth of a glass retort, and make it air tight with common luting. Sulphuret of iron is then to be introduced into the apparatus, by the tubulure, and diluted sulphuric acid poured cautiously upon it. Sulphuretted hydrogen is evolved, which, entering by the hole, penetrates all the crevices into which the rats may retire, and speedily destroys them.—*Gazette Medicale*.

New Mode of Effecting Instantaneous Vesication.—Cut a piece of linen, cotton, or paper, of the desired size and shape ; dip it in spirits of wine, eau de Cologne, or even in strong brandy ; wring it or wipe the surface, that none of the fluid may trickle from it to the adjoining skin ; lay it on the part intended to be blistered ; apply a lighted candle or paper, carrying the flame rapidly over the whole surface, that it may all take fire at once. The ignition does not last a minute, and the cuticle will be found to be detached, and easily separable from the cutis.—*Bulletin de Therapeutique*.

Whole number of deaths in Boston for the week ending June 2, 34. Males, 14—Females, 20.

Of debility, 1—consumption, 7—convulsions, 2—gravel, 1—old age, 2—measles, 5—croup, 1—lung fever, 1—scarlet fever, 2—throat distemper, 3—drowned, 1—inflammation on the lungs, 1—unknown, 2—inflammation on the brain, 1—infantile, 1—inflammation in the bowels, 1—stillborn, 2—intemperance, 1.

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[NO. 18.]

EFFECTS OF MINUTE DOSES OF MERCURY IN RESTORING THE VITAL FUNCTIONS.

A LATE number of the London Medical Gazette contains a long, and very interesting and instructive essay, by Dr. A. P. W. Philip, on the subject mentioned above. Dr. P. gives a minute but general exposition of the *modus operandi* of mercury and its different preparations, of the comparative advantages of its various modes of administration, of the cases to which minute and frequently repeated doses are adapted, and the circumstances to be attended to in their employment. We omit those parts of the paper which will be least important to the reader in a practical view, and offer below his remarks on the *modus operandi* of this remedy, given in the manner recommended, in chronic diseases.

I had occasion to observe, in speaking of Mr. Abernethy's plan of exhibiting mercury in diseases of continuance, that when it fails there is another which is often successful. This consists simply in greatly lessening the dose, and in the same proportion increasing its frequency.

The benefit derived from this change depends on the most fundamental laws of our frame. All agents, capable of affecting the living animal body, act both as stimulant and sedative, according to the quantities employed; and we call them by one or other of these names, according as they are best fitted to produce the one or other effect.

Spirit of wine we call a stimulant, because in all moderate quantities it produces the stimulant effect; but there is a quantity of it, as appeared in the riots of Lord George Gordon, when many of the mob took draughts of spirit of wine, mistaking it for common gin, which produced instant death without any degree of previous excitement. Digitalis we call a sedative, because in ordinary doses it acts as such; but it appears, from very accurate experiments, that in extremely minute doses it acts as a stimulant.

Mercury is one of those agents in which the stimulant and sedative effects are so nearly balanced, that neither predominates so much as to obtain for it either appellation; but it observes the same law as all other agents capable of affecting the living animal body. In small or moderate doses, the stimulant effect prevails; in excessive doses, the sedative; and the repetition of even moderate doses, unless at very distant intervals, seldom fails at length to produce more or less of the latter. Is

there a dose, then, so small as to produce little or no sedative effect, and yet capable of the stimulant effect on which we have reason to believe the beneficial tendency of this medicine always depends? Is there a dose in which, in most constitutions, the sedative effect either does not take place, or takes place so slowly that the cure may be far advanced before the patient begins to experience any degree of it?

The result of my experience is, that there is such a dose.

With respect to its amount, it varies from half a grain of blue pill, the largest dose I almost ever employ with a view to the alterative effect, to the eighth part of a grain, the smallest dose from which, in general, much good can arise, though there are cases, in particular constitutions, in which I believe much smaller doses than even this will be found beneficial, and the interval at which the dose has been given is from six to eight hours. By these doses, given at such intervals, we can in most constitutions, and for a considerable length of time, in some for an unlimited time, obtain the stimulant without the sedative effect of the medicine, which is the great object in the employment of mercury. We thus, as far as the particular constitution is capable of it, secure the whole of its beneficial, without any degree of its injurious, effect.

As soon as the latter is perceived, it must either be obviated, or the medicine laid aside; for nothing will compensate for the sedative effect of this medicine, whether produced by large or small doses. It is as certainly injurious as the disease, but, as in the case of the medicine, it is always in our power to remove the offending cause; in the hands of a prudent practitioner, we have the chance of benefit without the risk of injury, unless the certainly fatal nature of the disease makes it advisable to risk, to a certain extent, the sedative effect of the only means of cure.

With respect to the minute and frequently repeated doses, I would say without hesitation, and from ample experience, that in all cases, except where the great discharges, or other rapid effects this medicine is capable of producing, are required, they are not only the safest, but the most effectual, mode of exhibiting it. Their operation appears to be that of a gentle but constant stimulant, exciting to due action the various organs of assimilation, and particularly the liver. The following case is strikingly illustrative of their power in producing the peculiar effects of the medicine, and I could add many others of a similar nature:—

A lady came from a great distance to London, for the purpose, she said, of being salivated, which she had been told would cure her of a bilious complaint, under which she had labored for many years. For this purpose she had taken in vain, in the country, very large doses of mercury, much beyond the largest usually given in this climate. I saw no occasion for salivation, but directed her, with other means, half a grain of blue pill three times a day. Her case did not require frequent visits, and not being then so well acquainted with the effects of the plan, I thought, as the mouth had resisted such doses, that no precautions respecting it were necessary, when, at one of my visits, after she had taken the medicine for about a fortnight, I found her in a state of severe salivation; the whole of the face was swelled, and she was for a considerable time confined to bed. At no great distance of time she left London

well, and I learned from her sister, who two years afterwards was placed under my care, that she remained so.

It is not difficult to perceive the principle on which the minute doses are so powerful. From their little aperient tendency, they readily enter the system, and, from the little irritation and excitement they occasion, they are not apt to be thrown off by it. Such cases as the preceding, and I could mention many, in which a certain affection of the mouth arose from even smaller quantities, which, had they been continued, would soon have produced the same effect as in the preceding case, prove that the peculiar effects of mercury may be obtained in any degree we please, by small doses. What, then, can be the motive for employing larger ones, unless, either from the nature of the symptoms, or the urgency of the case, the more active effects of the medicine, or the more rapid impregnation of the system, be required; or, as happens in certain diseases, the powers of the absorbing vessels are so impaired, that minute doses are no longer capable of exciting them, and therefore cannot enter the system?

The cause of minute doses sometimes producing an effect on the gums, when larger doses fail, arises from the latter being so much more powerful in exciting the excretories, by which, in certain constitutions, they are often thrown off as fast as they are taken, and thus little impression is made, either on the mouth or the disease. It is to the thorough manner in which the minute doses are received into, and retained in, the system, and the general, steady, and gentle impression they make, that they owe an efficacy which surprises those who have not been accustomed to see their effects.

Such doses, of course, have little effect in suddenly emulging the biliary ducts, and thus discharging collections of vitiated bile; and, until they succeed in restoring the due action of the liver, which in general requires some time, the collections are in many cases more or less apt to form under their use, and occasionally to require the operation of a more active mercurial, the necessity for which is different in different cases, according to the tendency to such accumulations. Where there is no tendency of this kind, the active dose is unnecessary, and its frequent repetition is seldom proper. Calomel, we have seen, generally answers the purpose of the larger dose better than the blue pill, although, in the more obstinate cases, I have sometimes found a combination of the plan I am now describing, and that of Mr. Abernethy, the most successful.

THE CHOLERA IN PARIS.

THE following account, which is, no doubt, a correct one, is from the pen of Mr. N. P. Willis, of this city, now in Paris. It composes the latest of those epistles published and publishing in the *New York Mirror*, under the head of "*First Impressions of Europe*;" and, as it was written by an intelligent, although not a medical, observer of the epidemic lately so rife in the French metropolis, it is recommended to the attention and implicit credit of the reader.

You see by the papers, I presume, the official accounts of the cholera in Paris. It seems very terrible to you, no doubt, at your distance from the scene, and truly it is terrible enough, if one could realize it, any where ; but many here do not trouble themselves about it, and you might be in this metropolis a month, and if you observed the people only, and frequented only the places of amusement and the public promenades, you might never suspect its existence. The weather is June-like, deliciously warm and bright ; the trees are just in the tender green of the new buds, and the public gardens are thronged all day with thousands of the gay and idle, sitting under the trees in groups, laughing and amusing themselves, as if there was no plague in the air, though hundreds die every day. The churches are all hung in black ; there is a constant succession of funerals, and you cross the biers and hand-barrows of the sick, hurrying to the hospitals, at every turn, in every quarter of the city. It is very hard to realize such things, and, it would seem, very hard even to treat them seriously. I was at a masque ball, at the *Theatre des Varietes*, a night or two since, at the celebration of the *Mi Careme*, or half-lent. There were some two thousand people, I should think, in fancy dresses, most of them grotesque and satirical, and the ball was kept up till seven in the morning, with all the extravagant gaiety, noise and fun, with which the French people manage such matters. There was a *cholera-waltz*, and a *cholera-galopade*, and one man, immensely tall, dressed as a personification of the *Cholera* itself, with skeleton armor, bloodshot eyes, and other horrible appurtenances of a walking pestilence. It was the burden of all the jokes, and all the cries of the hawkers, and all the conversation ; and yet probably nineteen out of twenty of those present lived in the quarters most ravaged by the disease, and many of them had seen it face to face, and knew perfectly its deadly character !

As yet, with few exceptions, the higher classes of society have escaped. It seems to depend very much on the manner in which people live, and the poor have been struck in every quarter, often at the very next door to luxury. A friend told me this morning that the porter of a large and fashionable hotel in which he lived had been taken to the hospital ; and there have been one or two cases in the airy quarter of St. Germain, in the same street with Mr. Cooper, and nearly opposite. Several physicians and medical students have died too, but the majority of these live with the narrowest economy, and in the parts of the city the most liable to impure effluvia. The balls go on still in the gay world, and I presume they *would* go on if there were only musicians enough left to make an orchestra, or fashionists to compose a quadrille. I was walking home very late from a party the night before last, with a captain in the English army. The gray of the morning was just stealing into the sky ; and, after stopping a moment in the *Place Vendome*, to look at the column, stretching up apparently unto the very stars, we bade good morning, and parted. He had hardly left me, he said, when he heard a frightful scream from one of the houses in the *Rue St. Honoré*, and, thinking there might be some violence going on, he rang at the gate and entered, mounting the first staircase that presented. A woman had just opened a door, and fallen on the broad stair at the top, and was writhing in great agony. The people of the house collected immediately ; but,

the moment my friend pronounced the word cholera, there was a general dispersion, and he was left alone with the patient. He took her in his arms, and carried her to a coach-stand without assistance, and, driving to the *Hotel Dieu*, left her with the *Sœurs de Charité*. She has since died.

As if one plague was not enough, the city is still alive, in the distant faubourgs, with revolts. Last night, the *rappel* was beat all over the town, the national guard called to arms, and marched to the *Porte St. Denis*, and the different quarters where the mobs were collected.

Many suppose there is no cholera except such as is produced by poison, and the *Hotel Dieu* and the other hospitals are besieged daily by the infuriated mob, who swear vengeance against the government for all the mortality they witness.

I have just returned from a visit to the *Hotel Dieu*, the hospital for the cholera. Impelled by a powerful motive, which it is not now necessary to explain, I had previously made several attempts to gain admission in vain; but yesterday I fell in fortunately with an English physician, who told me I could pass with a doctor's diploma, which he offered to borrow for me of some medical friend.

It was like one of our loveliest mornings in June—an inspiring, sunny, balmy day, all softness and beauty—and we crossed the Tuileries by one of its superb avenues, and kept down the bank of the river to the island. With the errand on which we were bound in our minds, it was impossible not to be struck very forcibly with our own exquisite enjoyment of life. I am sure I never felt my veins fuller of the pleasure of health and motion, and I never saw a day when everything about me seemed better worth living for. The splendid palace of the Louvre, with its long *façade* of nearly half a mile, lay in the mellowest sunshine on our left; the lively river, covered with boats, and spanned with its magnificent and crowded bridges, on our right; the view of the island, with its massive old structures below, and the fine gray towers of the church of *Notre Dame* rising, dark and gloomy, in the distance, rendered it difficult to realize anything but life and pleasure. That under those very towers, which added so much to the beauty of the scene, there lay a thousand and more of poor wretches, dying of a plague, was a thought my mind could not retain a moment.

Half an hour's walk brought us to the *Place Notre Dame*, on one side of which, next this celebrated church, stands the hospital. My friend entered, leaving me to wait till he had found an acquaintance of whom he could borrow a diploma. A hearse was standing at the door of the church, and I went in for a moment. A few mourners, with the appearance of extreme poverty, were kneeling round a coffin at one of the side altars, and a solitary priest, with an attendant boy, was mumbling the prayers for the dead. As I came out, another hearse drove up, with a rough coffin, scantily covered with a pall, and followed by one poor old man. They hurried in, and I strolled around the square. Fifteen or twenty water-carriers were filling their buckets at the fountain opposite, singing and laughing, and at the same moment four different litters crossed towards the hospital, each with its two or three followers, women and children, friends or relatives of the sick, accompanying them to the door,

where they parted from them, most probably forever. The litters were set down a moment before ascending the steps; the crowd pressed around and lifted the coarse curtains; farewells were exchanged, and the sick alone passed in. I did not see any great demonstration of feeling in the particular cases that were before me; but I can conceive, in the almost deadly certainty of this disease, that these hasty partings at the door of the hospital might often be scenes of unsurpassed suffering and distress.

I waited perhaps ten minutes more. In the whole time that I had been there, twelve litters, bearing the sick, had entered the *Hôtel Dieu*. As I exhibited the borrowed diploma, the thirteenth arrived, and with it a young man, whose violent and uncontrolled grief worked so far on the soldier at the door, that he allowed him to pass. I followed the bearers to the ward, interested exceedingly to observe the first treatment and manner of reception. They wound slowly up the stone staircase to the upper story, and entered the female department—a long low room, containing nearly a hundred beds, placed in alleys scarce two feet from each other. Nearly all were occupied, and those which were empty my friend told me were vacated by deaths yesterday. They set down the litter by the side of a narrow cot, with coarse but clean sheets, and a *Sœur de Charité*, with a white cap, and a cross at her girdle, came and took off the canopy. A young woman, of apparently five and twenty, was beneath, absolutely convulsed with agony. Her eyes were started from the sockets, her mouth foamed, and her face was of a frightful, livid purple. I never saw so horrible a sight. She had been taken in perfect health only three hours before, but her features looked to me marked with a year of pain. The first attempt to lift her produced violent vomiting, and I thought she must die instantly. They covered her up in bed, and, leaving the man who came with her hanging over her with the moan of one deprived of his senses, they went to receive others, who were entering in the same manner. I inquired of my companion how soon she would be attended to. He said, “Possibly in an hour, as the physician was just commencing his rounds.” An hour after this I passed the bed of this poor woman, and she had not yet been visited. Her husband answered my question with a choking voice and a flood of tears.

I passed down the ward, and found nineteen or twenty in the last agonies of death. They lay perfectly still, and seemed benumbed. I felt the limbs of several, and found them quite cold. The stomach only had a little warmth. Now and then a half groan escaped those who seemed the strongest; but, with the exception of the universally open mouth and upturned ghastly eye, there were no signs of much suffering. I found two, who must have been dead half an hour, undiscovered by the attendants. One of them was an old woman, nearly gray, with a very bad expression of face, who was perfectly cold—lips, limbs, body and all. The other was younger, and looked as if she had died in pain. Her eyes appeared as if they had been forced half out of the sockets, and her skin was of the most livid and deathly purple. The woman in the next bed told me she had died since the *Sœur de Charité* had been there. It is horrible to think how these poor creatures may suffer in the very midst of the provisions that are made professedly for their relief. I asked why a simple prescription of treatment might not be drawn up

by the physicians, and administered by the numerous medical students who were in Paris, that as few as possible might suffer from delay:—"Because," said my companion, "the chief physicians must do everything *personally*, to study the complaint." And so, I verily believe, more human lives are sacrificed, in waiting for experiments, than ever will be saved by the results. My blood boiled from the beginning to the end of this melancholy visit.

I wandered about alone among the beds, till my heart was sick, and I could bear it no longer, and then rejoined my friend, who was in the train of one of the physicians, making the rounds. One would think a dying person should be treated with kindness. I never saw a rougher, or more heartless manner, than that of the celebrated Dr. —, at the bedsides of these poor creatures. A harsh question, a rude pulling open of the mouth, to look at the tongue, a sentence or two of unsuppressed commands to the students, on the progress of the disease, and the train passes on. If discouragement and despair are not medicines, I should think the visits of such physicians were of little avail. The wretched sufferers turned away their heads after he had gone, in every instance that I saw, with an expression of visibly increased distress. Several of them refused to answer his questions altogether.

On reaching the bottom of the *Salle St. Monique*, one of the male wards, I heard loud voices and laughter. I had noticed much more groaning and complaining in passing among the men, and the horrible discordance struck me as something infernal. It proceeded from one of the sides to which the patients had been removed who were recovering. The most successful treatment has been found to be *punch*, very strong, with but little acid, and, being permitted to drink as much as they would, they had become partially intoxicated. It was a fiendish sight, positively. They were sitting up, and reaching from one bed to another; and, with their still pallid faces and blue lips, and the hospital dress of white, they looked like so many carousing corpses. I turned away from them in horror.

I was stopped in the door-way by a litter entering with a sick woman. They set her down in the main passage, between the beds, and left her a moment to find a place for her. She seemed to have an interval of pain, and rose up on one hand, and looked about her very earnestly. I followed the direction of her eyes, and could easily imagine her sensations. Twenty or thirty death-like faces were turned towards her from the different beds, and the groans of the dying and the distressed came from every side. She was without a friend whom she knew, sick of a mortal disease, and abandoned to the mercy of those whose kindness is mercenary and habitual, and of course without sympathy or feeling. Was it not enough alone, if she had been far less ill, to embitter the very fountains of life, and kill her with mere fright and horror? She sank down upon the litter again, and drew her shawl over her head. I had seen enough of suffering, and I left the place.

On reaching the lower staircase, my friend proposed to me to look into the *dead room*. We descended to a large, dark apartment, below the street level, lighted by a lamp fixed to the wall. Sixty or seventy bodies lay on the floor, some of them quite uncovered, and some wrap-

ped in mats. I could not see distinctly enough by the dim light to judge of their discoloration. They appeared mostly old and emaciated.

I cannot describe the sensation of relief with which I breathed the free air once more. I had no fear of the cholera, but the suffering and misery I had seen oppressed and half smothered me. Every one who has walked through a hospital will remember how natural it is to subdue the breath, and close the nostrils to the smells of medicine and the close air. The fact, too, that the question of contagion is still disputed, though I fully believe the cholera *not* to be contagious, might have had some effect. My breast heaved, however, as if a weight had risen from my lungs, and I walked home, blessing God for health with undissembled gratitude.

SUCCESSFUL TREATMENT OF CHOLERA.

MR. EARLE has recently favored the profession with an account of sixty cases of cholera successfully treated by calomel and opium in small doses, accompanied by the application of very large sinapisms, and followed by purgatives. From his history of these cases, we should suppose most of them extremely mild, and therefore not decisive of the effects of the practice in such instances as are usually fatal. The following account is said by the London Medical Gazette, from which we extract it, to be from a source which entitles the facts and statements contained in it to implicit confidence.

The following circumstances, relative to the treatment of cholera in the prison at Cold Bath Fields, are of great importance :—

The first twelve cases occurred in the vagrant's ward, and the patients were attacked soon after some prisoners had been admitted from St. Giles's, and other infected districts. The first case that was reported as cholera occurred on the fifth of April. This man was suddenly attacked, and died after a very short illness, with all the symptoms of the prevailing epidemic.

When the first cases occurred, there were in all about twelve hundred persons in the prison ; but, up to the beginning of this month, they were not afflicted with bowel complaints, nor, in fact, with any other epidemic disease, being as healthy as they generally are at that season of the year.

The first four cases were treated in the common way, with brandy and opium, an ammoniated mixture, ginger, sinapisms to the region of the stomach, the hot-air bath, &c. &c., and all of them died after a short illness.

Since the 4th of April, up to this date (April 17), forty cases in all have been under treatment. Of this number, nineteen were admitted into the observation ward, with the premonitory symptoms of cholera. All of these had bowel complaints and suspicious ejections ; some of them complained of severe pain in the abdomen, sickness of the stomach, and in several cases these symptoms were attended with cramps, chiefly in the lower extremities. The whole of them were immediately treated

by Mr. Wakefield with non-purgative saline remedies, recommended by Dr. Stevens, and in general they were convalescent in one, two, or three days, from the commencement of this practice. From this we may infer, that where the disease is attended to early, and *properly treated*, the state of collapse may be prevented in nineteen cases out of twenty.

We must state, however, that, as the numbers increased, it became necessary to dismiss those that appeared to be least ill, on purpose to make room for others. Of those that were dismissed as convalescent, two were re-admitted soon after in a state of collapse, and though every attempt was made to save them, yet they both died after a very short illness, with the symptoms of cholera in its most virulent form. With the exception, however, of the two that died, none of the cases (seventeen in number) were reported to the Central Board, partly, we believe, from a wish to avoid spreading alarm with respect to the prison, and partly because the disease was checked in the beginning; consequently, the patients had not *all* the symptoms of cholera, such as occur in the worst cases, or in the last stage.

In addition to the above seventeen which were not reported, there were twenty-one cases where the symptoms of cholera were very distinctly marked. Of this number, four of the early cases were treated in the common way, with diffusible stimuli, &c. &c., and all of them died after a short illness. These, with the two cases of relapse from the observation ward, make in all six deaths. Mr. Wakefield, however, having lost all faith in the common treatment, changed the practice; at the request of Dr. Stevens, the other fifteen cases were put under the saline treatment, and all of them recovered.

When the patients were first admitted, the following powder was immediately given, either in half a tumbler of tepid water, or occasionally in a little thin, clear, beef-tea:—

Supercarbonate of Soda, 3ss.

Muriate of Soda, ʒj.

Chlorate of Potass, grs. vii.

The above was given every hour, and continued until the patients were recovering from the state of collapse, after which it was diminished in frequency, in proportion as the re-action increased.

In all these cases, the outline of the practice was nearly the same, but in several instances the treatment was varied according to circumstances. When the stomach, for example, was extremely irritable, it was found that the carbonate of soda, given by itself, or the tartrate of soda, in a state of effervescence, were the most effective remedies that could be used, on purpose to allay the irritation, so as to enable the stomach to retain the stronger salts.

During the progress of the disease, an enema, with a large table-spoonful of muriate of soda, dissolved in warm water, was administered, with or without sugar, starch, &c., every three or four hours, at as high a temperature as the patients could well bear it. Sinapisms were also applied, as early as possible, to the region of the stomach, betwixt the shoulders, &c.; and, in the cold stage, frictions were also used with warm towels. Of the seventeen cases that were treated in this way, two

died, (namely, the two patients who were re-admitted in a state of complete collapse,) making, in seventeen cases, two deaths and fifteen recoveries. But, including the whole of those that were under the saline treatment, the total amount is, in thirty-six cases, two deaths and thirty-four recoveries.

The cases in question were under the care of Mr. Wakefield, the medical attendant of the establishment, and during his absence they were attended to by Mr. J. Wm. Crooke, who kept notes of the cases, and saw that the medicines were properly administered. We may add, also, that Mr. Wakefield, with a degree of fairness which does him great credit, invited Dr. Stevens to attend along with him, to witness the effect of the saline treatment, which has here, we may say, for the first time, been fairly tried in this disease.

We can also state, that the cholera made its appearance about the same period amongst a small colony of Italians, who live in a narrow lane within a few hundred yards of the prison. Of these, eleven were attacked. The three first cases were treated by bleeding, brandy, and opium, all used at the same time, and they all died. The other eight cases were attended by Mr. Whitmore, a surgeon in the neighborhood, who, having witnessed the effects of the saline treatment in the prison, adopted it. All his patients speedily and completely recovered, except one, who, on the 13th, was so ill that he was not expected to live many hours; even he, however, is now in a state of convalescence. Thus there have been in all fifty-three cases, seven of which were treated in the common way, with diffusible stimuli, and out of this number seven died; while, of the forty-six that were under the saline treatment, there were two deaths and forty-four recoveries.

UNUSUAL DISLOCATION OF HIP JOINT.

Case of Unusual Dislocation of the Hip Joint. By ROBERT KEATE, Surgeon.

I WAS called into the country, on the 13th February, to see a gentleman who had met with a severe accident, by his horse having fallen backwards with him and upon him, into a deep and narrow lane, where he had remained, as he supposes, for near a quarter of an hour before he was discovered, when he was nearly exhausted by pain and by fruitless exertions in calling aloud for aid. The horse was lying on its back upon him, with his heels struggling in the air; but the gentleman, who is strong and muscular, appears to have retained a firm hold of the bridle, and thus to have kept down the horse's head, and restrained, in some degree, the violent efforts of the animal.

He had been brought home, and was on his bed when I arrived. On examining the limb, I found it unusually elongated—at least from three to three inches and a half. The thigh was much flexed upon the pelvis—the leg as much bent on the thigh. The whole limb was carried outward, or apart from the other, more than I had ever observed in any case of luxation. The knee and the foot were much everted—the trochanter

extremely sunk, the soft parts being elevated in a circle around it. I found that the head of the femur was displaced, in a very unusual manner, to a situation inferior to the ischiatic notch, and I felt it lying close to, and on a level with, the tuberosity of the ischium, where it was capable of being freely moved under my fingers.

Without noticing the usual preparations for reducing a luxation, it will be sufficient to say, that in the first attempt the head of the bone was thrown into the foramen ovale. A second extension enabled me to place it *nearly* in its proper position in the acetabulum, but it could not be perfectly replaced; and on gently moving it, and placing my ear on the trochanter, I felt and heard a distinct grating, as if of ruptured cartilage. By drawing the upper part of the femur outwards, (by means of a round towel thrown over my neck,) and pressing the knee sharply inwards, the head of the bone was replaced, with a snap, in the acetabulum; but, even after this, I was able to elongate or pull down the limb, and it was evident to me that this was owing to a portion of the cartilaginous labrum having been broken off during the violence of the accident.

The gentleman was quite aware, and mentioned, after the first step, as I may call it, of the reduction into the foramen ovale, that the head of the bone was not properly replaced; and he stated that the luxation had taken place by the same route, first into the thyroid foramen, and afterwards while struggling in the ditch—from thence downwards to the situation in which I found it. The case has proved very favorable; but there was a severe injury at the same time to the knee, which threatens still to be troublesome.—*Medical Gazette*.

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ACTION OF EMETICS.

[Continued from p. 275.]

5. THE next general effect of artificial vomiting, which we shall notice, is that of producing diaphoresis, and a determination of blood to the cutaneous capillaries. The last effect is the more worthy of remark, since it is precisely the reverse of that produced by emetic substances when they fall short of causing actual vomiting. The effect of nausea is shown in the contraction of the extreme vessels, in the shrinking of the skin, and in the coldness and paleness of the surface. On the contrary, free vomiting increases cutaneous action, drives the blood into the capillaries, particularly those of the face, and brings on, in most cases, profuse perspiration. This difference, which is sufficiently remarkable, has been exaggerated by some authors who have made the comparison. Dr. Good, in an ingenious parallel which he draws between the effects of nausea and

vomiting, goes so far as to say, that, while the effect of the former is to depress all the vital powers, the latter tends as constantly to increase their energy. In this general form, the proposition seems to want distinctness and truth; for, were the vital powers actually prostrate, we could hardly, with any rational prospect of success, resort to emetics as a means of restoring them. A practice, founded on some principle like this, is resorted to under certain circumstances, and, as we apprehend, with very questionable benefit. Thus it is not uncommon to administer an emetic to persons under the influence of that peculiar exhaustion which arises from the use of cold water when the body is heated, and this not with the purpose of removing any offending cause, but with that of exciting some action in the system, and thus giving, as it were, a new impulse to the vital operations. What success may have attended this treatment in the hands of others, we know not; we have ourselves found it as useless in practice as it appeared to us unphilosophical in theory. The distinction, however, between the effect of nausea and that of actual vomiting, though perfectly obvious, is less important in practice than might at first seem; for the violent cutaneous action, of which we have spoken, is necessarily of short duration; and the diaphoresis, which is the more permanent, and therefore the more important, effect, may be maintained effectually by nauseant doses, when a state of active perspiration has once been excited by full and free vomiting.

6. Emetic substances, when followed by vomiting, obviously excite some specific action in the absorbent system, by which its activity is increased. Examples of this mode of action must be familiar to the observation of every practitioner. Effusions, whether serous or purulent, often rapidly and completely disappear under the influence of this mode of treatment. Hence the efficacy of emetics in dropsical cases, which will not unfrequently yield entirely to this single remedy. In fact, nature herself may be said to suggest this treatment, since dropsy has often been known to yield to spontaneous vomiting. Emetics have been administered, with repeated and singular success, in both hydrothorax and ascites; and in hydrocele, in consequence of the remarkable sympathy which exists between the scrotum and the stomach, and of which many other examples might be given, they are eminently useful. It is in consequence of the peculiar effect produced by vomiting on the absorbent system, that the matter of extensive abscesses sometimes returns into the circulation, and this without having created any external outlet. To the same principle must, in all probability, be referred the wonderful influence exerted by emetic substances over local inflammation. Of the long list of inflammatory diseases described by nosologists, not one can be mentioned which has not been known to be alleviated or cured under the influence of this remedy; and it is in the most formidable of these—in inflammations of the lungs, the pleura, and the bowels—that this influ-

ence has been most frequently and most successfully exerted. We say this is probably to be referred to an influence exerted on the absorbent system ; but since, in many of the cases where this relief is afforded, there exists considerable alteration of structure, without actual effusion, the development of some other influence seems to be necessary, in order to account for the effect produced ; and accordingly it is explained by many on the principle of a revulsion, or a metastasis of action, from the affected organ to the skin ; and this view of the subject is equally in accordance with the laws of pathology.

7. Another remarkable effect of vomiting, on the system, is its antispasmodic influence. There is no remedy which so constantly presents itself to the mind of the practitioner in cases of convulsion, and none, probably, which is so often employed with success. One reason for this, no doubt, is, that the affection of the nervous system so often arises from sympathy with a disordered state of stomach, and that the emetic, by removing the cause, also removes the effect. But in many cases, where this cause is not present, the good effects of emetics in unbending, as it were, the spastic action, do not fail to manifest themselves. In these cases, the relaxing influence of the preceding nausea contributes greatly to the general effect. Indeed, it is often curious to observe how, under this influence, the muscles of the face, chest, abdomen, and extremities, which had just before been strained up with every variety of contortion, are subdued into total inaction by the penetrating agent thus diffused through the system. In fine, nothing is more unequivocal than the antispasmodic influence exerted by this remedy under these circumstances. Whether the system, in this case, is affected by sympathy with a vital organ, or whether the influence, like that exerted over inflammation, is to be referred to a transfer of action, it is not easy to decide, or very important to determine. No simpler expression need be sought of the principle, since none is better suited to express the phenomena.

8. We have not adverted to the effect of emetics in simple fever, because this appears to us somewhat distinct from its other modes of operating, and therefore deserving of a separate consideration. This effect is so familiar, and so unequivocal, as to form the foundation of one of the most constant rules in practice ; and the administration of an emetic, in simple fever, is almost as much a matter of course, as if the disease consisted in the presence of some foreign matter in the stomach, which it was necessary to dislodge. In view of the striking influence exerted by emetics in this disease, those who have attempted to assign to its proximate cause a local habitation, have nearly agreed in fixing its seat in the stomach or in the liver. By others, again, who adopt the Cullenian or spasmodic theory of fever, the effect of emetics in these cases is referred to its diaphoretic influence ; and, taken in connection with this theory,

the explanation is sufficiently satisfactory. But, so long as the nature of fever continues to be a subject of dispute, it is obvious that the mode of operation of the remedy must partake of this uncertainty.

FOXGLOVE IN THE CURE OF CONSUMPTION.

EVERY physician knows that the same medicine produces very different, and often opposite, effects on the system, in large and small doses. Opium is a familiar example; ipecac. is another—in small doses being tonic, and emetic in large. Mercurials, too, are subject to the same remark, and it is to very recent observation we owe the knowledge of the fact, that the peculiar alterative effect of this article, and its greatest degree of influence over chronic disease, is obtained by the frequent administration of minute doses, from one eighth to one half a grain of blue pill, three or four times a day. By this mode of prescription, the celebrated Dr. Wilson Phillip has been enabled to command severe diseases of the stomach, liver, brain, and other organs, which had been of long standing, and resisted the remedy in larger doses; he has been enabled thus to produce salivation in persons to whom larger doses had been given for a long time without affecting the salivary glands or the complaint for which it was prescribed.

An Irish surgeon has recently come out in defence of an old remedy in pulmonary consumption—the *digitalis purpurea*. He has ascertained, by patient trials, that foxglove, given in minute doses, and combined with the spirit of lavender, is capable of producing the following effects, in the cases of consumption, without the least disagreeable sensation in the stomach or any other organ:—

1, increased action of the kidneys;—2, reduction of the pulse;—3, absorption from the lungs;—4, mitigation and removal of cough;—5, improvement of appetite;—6, cessation of night sweats;—7, restoration of health. The combination with lavender prevents the inconvenience sometimes produced by the digitalis alone on the stomach and nervous system.

In those advanced stages of phthisis that are accompanied by colliquative diarrhœa and aphthæ, this remedy has not been tried by Dr. Wood; but he supposes, from his experience with it given in the foregoing manner, that it is capable of affording relief at as late, and perhaps a later period, than any other article in the materia medica.

HYSTERICAL AFFECTIONS OF THE KNEE.

THE obstinacy with which many painful affections of the knee and other joints withstand treatment, after the primary inflammation has been sub-

duced by blistering and general depletion, has led to the belief that they may, in some cases at least, assume at such period a nervous character. On this supposition an English surgeon has tried, in a case reported in the *Lancet*, the efficacy of valerian, and found it eminently successful. The prescription was that of Sir Henry Hallford—an infusion made by pouring boiling decoction of bark on the powdered root of valerian. Of this infusion ℥ xi. mixed with ℥ j. of the ammoniated tincture was administered to the abovementioned patient three times a-day.

MASSACHUSETTS MEDICAL SOCIETY.

THE annual meeting of this large and most respectable society was held on Wednesday, the 6th instant, at the society's rooms at the Athenæum. The annual reports of the several officers, and of select committees, were read and accepted, and the affairs of the society appeared to be in a flourishing state. A memorial was received and read, from the Berkshire District Society, requesting such modification of the principles of the society, as shall ensure to the members, residing at a distance from Boston, more immediate benefit from the portion they contribute to the funds of the society. This memorial was referred to the Counsellors, who, it is to be hoped, will adopt some measures, if not to meet the demands of the gentlemen from Berkshire, at least to render the funds of the society more directly useful, if possible, to the distant members, and to remove any suspicions which may be entertained of an unjustifiable and impolitic monopoly of the honors or advantages of this ancient institution. The following gentlemen were chosen Counsellors for the ensuing year:—

For Suffolk—Drs. William Ingalls, John Dixwell, James Jackson, Benj. Shurtleff, John C. Warren, John Randall, Geo. C. Shattuck, John B. Brown, Walter Channing, Jacob Bigelow, George Hayward, Enoch Hale, jr., Solomon D. Townsend, John Ware, Zabdiel B. Adams, David Osgood, Edward Reynolds, John Homans.

For Essex—Drs. Richard Hazeltine, Abel L. Pierson, Andrew Nichols, Thomas Manning, Samuel Johnson, Joseph Kittredge, Jeremiah Spofford, Richard S. Spofford, E. L. Coffin, Calvin Briggs, J. G. Johnson.

For Middlesex—Drs. A. R. Thompson, Amos Bancroft, Calvin Thomas, Rufus Wyman, Thomas Bucklin, John Walton, Zadock Howe, William J. Walker, Timothy Wellington, J. C. Dalton, Ephraim Buck, J. Bartlett.

For Worcester—Drs. Stephen Bachelder, jr., John Green, Charles W. Wilder, Benj. F. Heywood, Edward Flint, Amos Parker, Geo. Willard, J. Stone.

For Hampshire—Drs. Joseph H. Flint, Alpheus F. Stone, Stephen W. Williams, Levi W. Humphreys, Job Clarke, Elisha Mather.

For Berkshire—Drs. Henry H. Childs, Robert Worthington, Wm. H. Tyler, Asa G. Welch, Alfred Perry, Hubbard Bartlett, R. Fowler.

For Norfolk—Drs. Amos Holbrook, Nathaniel Miller, John Bartlett, Robert Thaxter, Samuel Bugbee, Jeremy Stimson, Ebenezer Alden.

For Plymouth—Drs. Nathan Hayward, Hector Orr, Cushing Otis, Ezekiel Thaxter, Paul S. Nichols, N. Whitman.

For Bristol—Drs. Alexander Reed, A. Mackie, W. Witridge.

For Barnstable—Drs. Joseph Sampson, Aaron Cornish.

At a meeting of the Counsellors on Thursday, Dr. Bigelow, of Boston, was chosen to deliver the next annual address, and the following officers were chosen for the year :—

J. C. Warren, M.D., *President*.—J. Dixwell, M.D., *Vice President*.—G. Hayward, M.D., *Corresponding Secretary*.—E. Hale, jr., M.D., *Recording Secretary*.—W. Channing, M.D., *Treasurer*.—D. Osgood, M.D., *Librarian*.

CENSORS.

For the First District, and for the Society—Drs. Walter Channing, Geo. Hayward, Enoch Hale, jr., John Homans, W. J. Walker.

For the Second District—Drs. John Green, Benj. F. Heywood, Edward Flint, Charles W. Wilder, Gustavus D. Peck.

For the Third District—Drs. Joseph H. Flint, Elisha Mather, Atherton Clarke, Edward Dickinson, David Bemis.

For the Fourth District—Drs. Alfred Perry, William H. Tyler, Orren Wright, Robert Worthington, Asa G. Welch.

Papers on the Spotted Fever.—A correspondent desires a list of the papers on Spotted Fever, published in the early numbers of the New England Medical Journal. We give below a reference to all the articles that have appeared in that periodical on the subject in question :—

Vol. I., p. 151, A Letter from a Gentleman in Maine—207, A Short Notice of the Spotted Fever—228, Some Cases of Spotted Fever.—Vol. III., p. 166, Account of the Disease in Maine.

All the above are anonymous. Besides these, there appeared, in Vol. IV., p. 238, some remarks on this disease by Dr. Hazeltine, and in Vol. XIII., p. 23, a number of cases by Dr. Greene.

Whole number of deaths in Boston for the week ending June 8, 31. Males, 16—Females, 15.

Of convulsions, 1—measles, 4—unknown, 2—worms, 1—drowned, 1—infantile, 1—violence, 1—intemperance, 1—scarlet fever, 2—croup, 3—dropsy, 1—throat distemper, 1—old age, 2—consumption, 2—lung fever, 2—cancer in stomach, 1—epilepsy, 1—inflammation on the brain, 1—paralysis, 1—marasmus, 1—water on the brain, 1.

ADVERTISEMENTS.

PAXTON'S ANATOMY.

This day published by CARTER & HENDEE, corner of Washington and School Streets—An Introduction to the Study of Human Anatomy. By JAMES PAXTON, Member of the Royal College of Surgeons, &c. &c., with Illustrations. First American Edition, with additions, by WINSLOW LEWIS, jr. M.D. Demonstrator of Anatomy to the Medical Department of Harvard University.

June 4.

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[NO. 19.]

ACUTE AND CHRONIC LARYNGITIS.

Cases of Acute and Chronic Laryngitis. By M. CRUVEILHIER.

M. CRUVEILHIER divides the diseases of the larynx into those which occur above the glottis, those below it, and those which attack the glottis itself. Of all the laryngeal affections, inflammation, as might à priori be conceived, is the most frequent, and, whether acute or chronic, it either attacks the cellular tissue external to the mucous membrane, or the mucous membrane itself.

CASE 1. *Inflammation of the Cellular Tissue above the Glottis—Œdema of the Glottis.*

Pierre Vrain, æt. 56, an old soldier, and addicted to drinking, was seized, on the 26th April, with lassitude, and next morning complained of sore throat and pains in the limbs, with fever. On the third day, the soreness of the throat was great, deglutition and articulation difficult, and the velum palati was seen red and swollen. (*V. S. ad 3 x. Ros. c. Acid Hydrochlor*). In the evening, the breathing was very difficult, sibilous, with threatening of suffocation; the voice only heard at intervals, hoarse and croupy; the velum more red and swollen, the isthmus appearing almost closed. (*Hirud. xxx. gutt.*) After this the patient experienced great relief, and on the fourth morning the soreness of the throat and dyspnœa were gone. Three white patches were observed on the posterior arch, but the redness and swelling had almost disappeared. In the evening, all the bad symptoms returned, and delirium supervened. On the fifth day, the breathing was very difficult and noisy—the pulse almost imperceptible; at noon he died.

Sectio Cadaveris. The two folds of mucous membrane forming the sides of the superior orifice of the larynx, that situated posteriorly at the sides, in the neighboring part of the pharynx, the base of the tongue, on the anterior surface and superior border of the epiglottis, were all of whitish color, and infiltrated as it were with pus; the two mucous folds already alluded to, especially the left, were enormously swollen, projecting towards each other, so as to be in approximation everywhere, excepting for a small space behind, where a small aperture only remained for the passage of air. The glottis, and the portion of the larynx below it, were

more natural. On cutting through the parts affected, the pus was found to be diffused in the cells of the cellular texture, and not collected into any distinct abscess. The mucous membrane itself appeared soaked with pus, and its vessels were only detected here and there. Already several sloughs were completely or incompletely detached, and small blood-vessels, injected, marked their boundaries in a distinct manner. The tonsils were sound, the anterior surface of the epiglottis was covered with sloughs, and its inferior part, tumid and enlarged, contributed to contract the opening of the glottis. A representation of the larynx of the patient accompanies the case, and displays, in a marked manner, the almost complete obstruction of the air-passage, by the infiltration of the pus in the loose cellular tissue external to the mucous membrane.

M. Cruveilhier makes some judicious reflections on the foregoing case, which is more important in its character, and more worthy of study in its details, than a superficial reader or practitioner might possibly suspect. It is important, because it is one of a class not very unfrequent, and equaled in insidiousness only by its fatality; it deserves consideration, because it displays a common professional mistake—that of considering a patient as out of danger, or in little danger, when, in point of fact, his existence is in peril. We have seen several instances of the same description, and we speak from personal experience and observation. But we shall notice an observation or two of M. Cruveilhier's. He looks upon the affection as one of diffuse inflammation of the cellular texture external to the mucous membrane of the larynx. Of this there can be no question. He considers that there exists a great analogy between it and the angina œdematosa. They are similar in their seat, but not altogether in their nature; for in one the cellular membrane is infiltrated with serum—in the other with pus. But on the surface of the body we constantly witness the effusion of serum preceding that of pus or lymph in the subcutaneous and in the inter-muscular cellular membrane, and it is possible that a similar course may be observed in these anginae. We do not look on the point as determined, for reasons into which we cannot enter at present. If, says our author, a membrane which is attacked with inflammation is firmly attached on one side and free on the other, the inflammatory effusions are thrown out on its free surface; but, if loosely connected to other parts by the cellular tissue, effusions are apt to take place in the latter, and, he might have added, to be diffused in it to a great and a fatal extent. Thus we have seen, in examples of fatal cynanche, an effusion of lymph and pus commence in the cellular membrane external to the mucous membrane of the pharynx and larynx, and spread thence between the œsophagus and spine as low as the diaphragm, between the œsophagus and larynx, and between the larynx and its muscles throughout the front of the neck. Those who have bestowed much attention on the affections of the cellular membrane will experience no surprise at this.

With respect to symptoms, we can say little more than that they are those of acute cynanche, and that they are often more deceptive. We should say, however, that there is often a degree of anxiety of aspect, and appearance of something wrong, disproportionate to the obvious mischief. M. Cruveilhier insists very properly on careful examination of the throat, internally and externally. We should endeavor to obtain a view of the

epiglottis if possible, and frequently we may do so by patience and gentleness. Its condition of redness, paleness, or tumefaction, is an index of the state of the larynx above the glottis. Dr. Thulier, of Lunoges, has recommended examination of the part by the finger; but, supposing that accurate information were thereby obtained, patients will seldom be found to submit to this manual inspection in this complaint. In chronic diseases of the larynx, M. C. allows, and we agree with him, that this mode of investigation is extremely useful, and we know that it is practicable.

The treatment recommended by M. Cruveilhier is active and judicious:—a copious bleeding in the first instance, leeches, emetics. To this he should have added the inhalation of vapor, and the administration of calomel with active purgatives. But this will not suit all cases, and when the disease attacks the aged or the debilitated, which it too frequently does, the cautious practitioner will hesitate before he employs very violent measures. In such, calomel and opium, with sudorifics, purgatives, leeches, and local steaming, must be chiefly relied on.

CASE 2. Inflammation of the Cellular Membrane of the Larynx below the Glottis—Death from Suffocation.

A young Swiss was received into the Maison Royale de Santé, under M. Duméril, with pneumonia. He was convalescent from this, when he complained of a violent pain in the region of the larynx, though examination of the fauces, and of the region above and below the os hyoides, elicited nothing unnatural. Dyspnœa and great difficulty of articulation soon succeeded, with paroxysms of suffocation, in which the voice, respiration, and cough, were croupy. He died on the fifth day from the commencement of the symptoms.

Sectio Cadaveris. The larynx, examined from behind, presented a projection at the level of the cricoid cartilage, which, when exposed, was found denuded, perforated, and reduced to a very thin lamina, surrounded with pus, which was contained between it and the thickened mucous membrane. There was no trace of perichondrium. The arytenoid cartilages, surrounded with condensed cellular and mucous membrane, were no longer articulated to the cricoid, disorganized as it was. The laryngeal muscles were all infiltrated, but with what we are not informed. The disorganization of the cricoid cartilage extended to its sides, especially to the left.

M. Cruveilhier observes, that the death of the patient from suffocation is readily explained, by the projection, internally as well as externally, of the thickened mucous membrane and perichondrium detached from the cartilage. M. Cruveilhier also believes that the case was essentially one of inflammation of the cellular membrane external to the mucous. In support of the opinion, he cites the following case:—

Case. A young man, convalescent from typhus, was suddenly seized with hoarseness of the voice, unattended with difficulty of breathing. Eight days after the invasion of the symptoms, he died without any paroxysms of suffocation, and apparently from obstruction of the air-passages. On examination, a collection of matter was found in the substance

of the right mucous fold forming the superior aperture of the larynx. The arytenoid cartilage, deprived of its perichondrium, was bathed in the pus. M. Cruveilhier also adverts to another case, published by M. Boulland in the *Journal Complementary*, 1825, tome 19.

Case. A man, æt. 22, had been in the *Maison de Santé* for two months, on account of a putrid fever. Eight days after leaving the establishment, he presented himself at the *Cochin Hospital* in the following condition:—there was extreme hoarseness, which had existed for a month, harsh cough, with great soreness of throat, and threatening of suffocation on the slightest exertion. Next evening, the restlessness was such, that the patient could not remain in his bed; the respirations were deep, prolonged, and frequent, accompanied with a rough sound, like that of a bass-viol, and the patient was in a paroxysm of terror and suffocation, with a pulse scarcely to be felt. The patient was rather better during the night, but the symptoms returned next day. On the fourth day he had a paroxysm of dyspnœa, almost amounting to suffocation, and in the night he died.

Sectio Cadaveris. On the posterior part and sides of the larynx was an abscess capable of containing a filbert. The cricoid cartilage was denuded, as though dissected, and the abscess almost surrounded it. The crico-arytenoid muscles were bare, of greenish color, and thickened; the nerves could not be traced. The articulations of the arytenoid cartilages with the cricoid were entirely destroyed.

CASE 5. Chronic Ulceration of the Larynx, and partial Destruction of the Epiglottis—Death by Suffocation.

A man, æt. 40, applied at the *Maison Royale de Santé*, with all the symptoms of phthisis laryngea; deglutition was extremely difficult, almost always followed by long and severe cough, sometimes even by threatening of suffocation. On examination, M. Cruveilhier discovered thickening of the uvula, velum, and soft palate, with ulceration of the borders and anterior surface of the epiglottis. He had had cough and hoarseness for eight or ten months, but had only ceased to work for fifteen days. He died suddenly.

Sectio Cadaveris. The uvula was furred and thickened; the posterior arch of the palate thickened also; the epiglottis ulcerated and festooned in appearance at its circumference; the superior orifice of the larynx, and the mucous membrane covering its posterior surface, thickened, ulcerated, and granulated. The whole interior of the larynx presented the same thickening and granulated appearance; the base of the right arytenoid cartilage was denuded, ulcerated, and partially ossified. The lymphatic glands at the sides of the larynx were indurated and infiltrated with tuberculous matter. The lungs were closely adherent to the thoracic parietes, and crowded with miliary tubercles; in the summit of the right lung was a large cavity, perfectly cicatrized on its internal surface.

M. Cruveilhier observes, that he has witnessed sufficient cases to enable him to pronounce with confidence on the existence of phthisis laryngea, as a distinct disease. It is much more frequent, notwithstanding, in

combination with tubercular disease in the lungs ; in fact, we should say, from what we have seen of cadaveric investigations, that a very large proportion of phthisical patients present small laryngeal, or, at all events, tracheal, ulcerations previous to death. Here we must conclude these cases; and, although there is no fact absolutely new to be found amongst them, no doctrine of novel application to be drawn from them, no peculiar or successful plan of treatment advocated or even hinted at—still we think that their importance is sufficient to merit the attention of practical men. The insidious character and too fatal nature of these affections of the larynx cannot be too forcibly, too clearly, or too often pointed out ; for many a man has in some degree lost his professional character by attaching too light importance to diseases of this description.—*Medico-Chirurgical Journal*.

CASES OF DROPSY.

Dropsy treated with Elaterium, &c., in Middlesex Hospital. By DR. WILSON.

CASE 1. Lydia Ellis, aged 29, married, admitted 13th December. Ill three months with pain of chest and general swelling : had her second child 22d January last, but the swelling did not begin till the last three months, at which time a hardness was felt in the right inguinal region ; pulse small and very frequent ; tongue furred ; bowels open ; urine scanty, high colored, acid, not albuminous ; orthopnœa ; fluctuation perceptible in the abdomen.—Ext. Hyoseyami, gr. v. omni nocte. Decoct. Spartii co., Inf. Digitalis, equal parts, with Spir. Æth. Nitrici, 3i. three times a day ; to which was afterwards added, Potassæ Acet. ʒi.

Dec. 19th. Omit med. One grain of Elaterium dissolved in ʒiv. Spir. Æth. Nitrici ; 3i. of which to be taken every second hour, till the bowels are opened freely.

21st. Repeat Ext. Elaterium.

23d. Imperial drink.

24th. Increase the Ext. Elaterium to half-grain dose, in Spir. Æth. Nit., and to be repeated three times if necessary.

28th. Repeat Elaterium as before.

30th. Neither diuretics nor elaterium have produced any sensible diminution of the swelling : she seems much the same as when she came in.—Fiat paracentesis abdominis.

January 2d. Three gallons of very clear water were drawn off.

4th. Extracti Elaterii, gr. one-third, formâ pilulæ, secundis horis, ad tertiam vicem, si opus sit.

5th. Ext. Colocynth. co. gr. x. statim.

6th. Olei Crotonis Tiglii in i. formâ pilulæ, et enema commune statim. Repet. Ol. Crot. mi.

7th. Bowels freely open this morning, for the first time since she was tapped : greatly relieved ; pulse 100.—Potassæ Hydriod. ʒss. ex Aquæ ter die. Gin, ʒiij. daily. Ext. Colocynth. comp. gr. x. statim.

10th. Vomiting severe.—Omit med. *Acidi Hydrocyanici* m ij. *tertiis horis*, ad tertiam vicem.

11th. Ext. *Colocynth.* co. gr. x. statim, et. rep. si opus sit.

13th. *Olei Crotonis Tiglii* m i.

14th. Repet. *Ol. Crotonis* m i.

16th. Severe vomiting still continues; evacuations rare, and very scanty; has vomited several times stercoraceous matter, and relieved by it.—*Olei Crotonis* m i. formâ pilulæ, et repet. sextis horis, ad tertiam vicem, si opus sit. *Enema Decocti Avenæ cum Olei Terebinthinæ*, 3vj. octavis horis repetendum. *Linimentum Saponis comp.* abdomini intricatum.

17th. Vomiting absent the last thirty-six hours; has had two scanty solid motions this morning.—Repet. *Ol. Crotonis* m i. ter die formâ pilulæ.

18th. Has had two free evacuations this morning, in appearance natural; no sickness; much relieved.—Repet. *Ol. Crotonis* m i. cras mane, et *Enema* bis die.

19th. A slight motion last night and this morning; appetite improved; no pain, except in making water, which is very scanty.

20th. Had a copious solid motion last night; vomiting returned this morning.—Repet. *Pil.* et *Enema* bis die.

21st. Vomiting continued all yesterday, ceased to-day; bowels not opened. At night felt much fatigued; took her gin; soon after vomited, and shortly afterwards expired.

No post-mortem examination was allowed. From the dropsy being almost entirely confined to the abdomen, and a swelling first perceived in the right inguinal region, and as, after paracentesis, the right region was more full than the left, and neither diuretics nor purgatives had produced any sensible effects, it was supposed that the dropsy was ovarian.

After being tapped, the hydriodate of potass was given as a diuretic; but, from the almost constant sickness before and afterwards, and the great difficulty now of stimulating the bowels to action, it was soon abandoned; and, to effect the latter object, powerful means were had recourse to. The matter vomited at different times, about the 16th January, was certainly stercoraceous, as far as the evidence of sight and smell could be trusted; and sometimes the quantity vomited was very considerable.

CASE 2. A female, single, aged thirty-five, admitted 3d of February: confined eight months ago, and has been ill nearly ever since; weaned child three months since. Two months ago, head and face began to swell; a month after, swelling of abdomen commenced; and, a week after that, legs began to swell. At present, swellings of face and abdomen much subsided, but legs and thighs very much swollen, and skin in some parts red; pulse full.—To be bled to 3xvj. One third of a grain of Ext. *Elaeterium*, made into a pill, to be taken next morning, and to be repeated every second hour for three times, should the bowels not act.

Feb. 4th. Purged and vomited by the first dose, which was not repeated.—To have one third of a grain of *Elaeterium* only, once every second day.

8th. Dejections have been copious and liquid, but complains of much

sickness and distress, caused by medicine ; says her bowels are easily acted on, and begs for a less dose of medicine.—To have a quarter of a grain of Ext. Elaterium every second day.

13th. Has continued to have copious fluid motions ; œdema of legs much less ; catamenia have appeared, and very profuse.—Omit med. To have Potassæ Hydriodatis, \mathfrak{z} i. ex Aquâ, ter quotidie.

For the first two days after taking the above, the quantity of urine was not increased ; but on the third day the quantity very much increased, and continued so till the swellings entirely disappeared ; and the same treatment was pursued till the 27th, when she left the hospital.

CASE 3. John M'Cay, age 21, ill six months. His feet had always perspired greatly, till one day he put them in cold water, since which perspiration has ceased, and the feet, ankles, and face, became swollen, and have continued so ever since. Now the legs, thighs, penis, and scrotum, are greatly swollen ; abdomen slightly, face more so ; bowels costive ; urine scanty ; pulse 90, and full.—Venæsectio ad \mathfrak{z} xx. Ext. Elaterii, gr. one-fourth ; Spir. Æth. Nitrici, \mathfrak{z} i., ex Aquâ, to be repeated every second hour for three times, if not purged, and the same quantity to be taken every other day.

28th. Frequently vomits after medicine, but still a sufficient quantity remains to purge him. Legs and abdomen less.—To take same quantity of Elaterium made into pills.

Jan. 2d. The doses to be increased to one-third of a grain.

7th. Swellings of face, abdomen, and inferior extremities, much diminished.

18th. Has been purged every other day by Elaterium ; swellings almost gone.

He continued the same medicine till the 27th, after which no more Elaterium was given, as he had then a sharp attack of bronchitis, for which he was twice blistered, and once took ten grains of calomel ; for some days he took Mist. Amygdalæ, \mathfrak{z} iss. ; Potas. Nitratis, gr. x. ; Vini Antim. Tartarisati, mxx. ter die.

Feb. 6th. Much pain in the loins, with hæmaturia.—To be cupped on loins to ten ounces.

8th. Pains of loins almost gone ; no hæmaturia.

Afterwards his bowels were merely regulated, and half an ounce of castor oil was generally sufficient for that purpose.

20th. Went out well.

Although the disease, in the two last cases, had been of some standing previous to the admission of the patients, they were considered as examples of inflammatory dropsy, and in both these instances bleeding was had recourse to. It may be observed, that one quarter of a grain of Elaterium produced a more purgative effect on the woman than one grain did on the man. In the use of this medicine great caution is required, and the doses should at first be small ; for, in addition to the difference of susceptibility to its action in different constitutions, the preparation itself varies very greatly in strength.—*Medical and Physical Journal.*

CHOLERA.

Remarks on the External Application of Opium in Cholera. By DR. BOW.

WITHOUT attempting even to guess at the mode by which nervous influence is re-produced after expenditure, it is certain that there is no reservoir of dormant influence from which an organ can be supplied when its function is immoderately exercised. It is supplied, then, at the expense of other organs; or, if the function of any organ be exercised less actively than usual, then other organs receive an increased supply of nervous influence, and their functions therefore become proportionably more active. The above is meant as introductory to a few remarks on cholera.

In my work on fever, I profess to be one who believes that the office of the great sympathetic nerve is to effect involuntary motion, and the chemical processes which go on in the system; and I believe with many, and in particular with Mr. G. H. BELL, that a failure in power in the sympathetic system of nerves, "is to be ascribed the disease which has obtained the name of Cholera Asphyxia," and also with him, that "the great object in the cure of the disease is to stimulate the sympathetic system of nerves." But there is only one way by which this system of nerves can effectually be stimulated: of this hereafter. If the functions of the sympathetic nerve be suspended or less actively exercised, where is the proof that the functions of other organs are being exercised more effectually? It is to be found in the fact, that the mental faculties remain unimpaired, although black blood is circulating, or perhaps rather stagnating, in the brain. It is to be found in the fact, that the skin and stomach acquire a morbid sensibility, sometimes to a painful degree, and in the tonic spasms of the muscles. In a healthy state of the body, we may divert nervous influence from the sympathetic system to the surface of the body, by stimulating the extremities of the sentient nerves by blisters, sinapisms, and other irritating applications; but these are applied, in the disease before us, with the view of producing an opposite effect! Diminish the sensibility of the surface rather than increase it, and we shall then arrive at the true mode of stimulating the sympathetic system. Wash the patient with laudanum, and observe the effect.

Before the cholera appeared in Sunderland, I attended a case of common cholera; for, although it was the worst case I had till then seen, I did not think of discovering any resemblance to the Asiatic. All the common remedies failed to check the vomiting, purging, and cramps; but I at once succeeded with the strong opiate liniment, the formula for which I subjoin.*

A report of this case I forwarded to one of the medical gentlemen sent by government to Sunderland; but, as he took no notice of my letter, I presume he did not receive it, although the dead-letter office has not noticed it either.

The following is a case in which the good effects almost immediately

* R. Opii, one ounce; Liniment. Camph. c. one ounce. Digere per dies aliquot et effunde linimentum.

followed the application, and the only other where I have had an opportunity of trying the plan fairly :—

Mrs. D., aged 26, the mother of three children (the youngest sixteen months old, still at the breast), was attacked, at three in the morning, with vomiting and purging. I saw her at five; she then complained of great thirst, great weakness, and severe cramp in the great toes; there was lividity under the eyes, and coldness of the feet and hands, although she did not complain of it; pulse 104, and feeble; the tongue appeared bloodless, but not very cold. I saw neither the dejections nor the matter vomited.—Colomel, opium, &c.

At half-past eight o'clock the symptoms were alarming. The cramps had extended to the knees; she could not move out of bed, and there the stools were passed; the medicine was rejected from the stomach, and the matter vomited had the appearance of thin gruel. The dejections I did not see, but was told afterwards there appeared nothing but water. The smell of the bed was exactly that which I perceived at Newburn. The pulse was barely perceptible; the lividity under the eyes greatly increased, and the thirst intolerable; the voice weak.—I ordered rather more than half an ounce of the liniment to be rubbed on the bowels and spine; two grains of calomel.

At ten o'clock I found her lying on her side, with her knees drawn up; she had neither vomited nor purged since the liniment was applied; the tongue had lost its paleness; color had returned to the cheeks, and there was a glow of heat all over the body. She said she was perfectly relieved, excepting that when she moved the cramp returned to the toes.

At eleven o'clock I found her in a fast sleep. Whilst I endeavored to feel the pulse she awoke, and said she was perfectly happy. Next day she was able to attend to the business of the house.

When at Newcastle, in January last, I mentioned to Mr. HOWEY what I conceived to be the nature of the disease, and also the benefit which I expected would result from opiate frictions: upon which he noticed a case where the cure was attributed to the accidental application of two ounces of laudanum. Mr. H. did not himself attend the patient, but he was kind enough to procure for me the following, which is an extract from his letter :—

“The case in which the two ounces of laudanum were rubbed upon the bowels, was that of a man named Killbreath, at Dent's Hole, and occurred before I came to this neighborhood. It appears that Mr. F. found him in the evening rapidly approaching the stage of collapse; the pulse was extremely weak and thready; hands cold, and rather blue; severe cramps in the legs, with vomiting and purging, the fluid evacuated resembling milk and water. About three pints of warm water were immediately given, followed by an enema of gruel, containing Spt. Ammonia. The bowels having been completely emptied by these means, a draught, containing Tinct. Opii, gtt. xxiv., was given, and half an ounce directed to be rubbed upon the abdomen; but, by mistake, two ounces were used in that manner. Next morning the man had completely rallied, having passed a comfortable night, without any recurrence of the vomiting.”

Dr. CRAGIE says, that in the choleric collapse the heart's action is certainly augmented in force, as if to overcome an obstacle; and, if it succeeds in this, the disease is cured. I have no doubt but that the heart's action is augmented in force, for some time after collapse takes place, compared to what its force was in the previous stage; and I have as little doubt but that we have it in our power, in the majority of cases, to enable it to overcome the obstacle, by a plentiful application of opium, belladonna, or the like, externally.—*Ib.*

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JUNE 20, 1832.

THE CHOLERA AT PARIS.

FEW sayings are more wise than that when a point is in dispute, we should *act* on the safest side. Our brethren in Paris have erred, we apprehend, in disregarding this rule. If anything can be said to be in dispute, it is the question respecting the contagiousness of the cholera. Yet, on the arrival of the disease in Paris, it was officially proclaimed to be incapable of communication from the sick to the healthy, and the wards of the hospitals, in which the cholera patients were placed, were thrown open to the public. This measure, and its natural consequences on the arrangements of the great mass of the people, may be fairly presumed to be one reason why so many have fallen victims to the disease in so short a time, and why it should have attacked an unusual number of those who occupy prominent places in society. It is said, and with some degree of truth, no doubt, that the cholera cannot manage frames built out of beef and porter, so well as those made up of salad, wine, and soup meagre. But there is a manifest reasonableness in the belief that the devastation produced by the disease among the French, was spread more widely and indiscriminately by the general exposure of all classes to the persons of the sick. In other countries, where the idea of contagion has been before the people, a measure of precaution has been adopted, not only by governments, but by families and individuals. The most affluent and intelligent persons in those countries have thus avoided at least one source of danger. But the members of our profession have been necessarily called to disregard these considerations, and it is among physicians alone, in the higher classes, that the disease has broken out and proved fatal. Not so in Paris. Curiosity, policy, or a sense of security (from the ill-timed and ill-judged bulletin of the faculty), led great numbers of distinguished individuals to visit the dying and the dead, and hence we find that dukes, and counts, and ministers, as well as doctors, have fallen under the

scourge. Perrier grasped the hand of a patient dying of the pestilence, and soon after, he himself, then his wife, then his son, and then his sister-in-law, became affected. The son of the king was admitted to the Hotel Dieu, and, unless he is protected by the same spirit that saved from the plague Napoleon, who touched the sores of the sick in Egypt, and Desgenettes, who inoculated himself with its virus, we should not be surprised to hear of the disease within the walls of the Palais itself.

We have heretofore been undecided respecting the point in dispute. One account has seemed to show clearly that the disease is contagious, the next to produce doubt, a third to confirm the first impression, and so on. It is a matter of rare difficulty to settle one's opinion definitely on a subject so obscure. Under these circumstances, we have always held, and still maintain, that, until the disease is proved to be non-contagious, we should all do wisely to adopt such measures of protection as would be imperative if it were clearly and unquestionably known to be capable of direct communication from the sick to the well.

The history of the smallpox shows the wisdom of this rule. Notwithstanding its very decided, and now universally accredited, contagious character, it had existed longer, and prevailed more widely, than the cholera now has, before this character was acknowledged. Before it was even suspected, it had spread far and long, and even Sydenham appears not to have been apprised of its being at all contagious. During the many years of doubt on this subject, who, we would ask, displayed the most wisdom, those who acted on the principle we have uniformly upheld respecting the present epidemic—i. e. to regard it as contagious until it is *proved* otherwise—or those who exposed themselves, and threw open the doors of the sick to every passer by, and exposed their persons to the gaze and the touch of the curious? Unquestionably the former. Another illustration may be found in the history of the plague,—another, we apprehend our progenitors will say, in that of the cholera.

Smallpox, measles, scarlatina, &c., visit us occasionally. In some seasons they spread very generally, with great rapidity, and are extremely fatal. At others they are mild, and last but a short time. This variation must be owing to the state or constitution of the atmosphere, which, in some seasons, peculiarly predisposes the system to be affected by certain morbid agents. When this predisposition is general and strong, for the smallpox for example, many cases are produced by the slightest exposure to the sick, and many in which it is impossible to trace any exposure whatever. The same is more frequently true of measles. This disease, as well as the smallpox, sometimes breaks out in a family in the far country, who have had no possible means of deriving it from a previous case. Every city physician knows that like cases occur in the sphere of his own practice. On the other hand, it is *certain* that if three children are carried to the bedside, and allowed to touch a child who has the

measles, two of them will most probably break out in a fortnight, and the third as probably escape the disease altogether. Now what should we think of a smart controversy growing out of the above cases—one party arguing that rubeola is *contagious*, because two children exposed to one sick of it, received the disease, and the other party declaring it *not contagious*, because the other child escaped,—and fortifying this opinion by the established and oft-noticed fact, that it had broken out in families who lived remote from any other human residence, and who had had no recent communication with any one laboring under such a malady? On both sides, facts without number might be adduced in support of each opinion, and the controversy might thus be carried on ad infinitum—at one time the proponderance being in favor of the contagionists, and at another of their opponents. The question, however, respecting this disease, has long been settled, and it is universally acknowledged that the measles is most generally communicated from the sick to the healthy, but that, like every other contagious disease, this is not its only mode of occurrence; that in certain states of the atmosphere, strongly predisposing the system to it, it occurs *de novo*, without any personal contact whatever, and that, after a long absence from a town or city, it most generally makes its appearance in many different parts of the place at the same time, entirely forbidding any supposition of a contagious origin.

Now of precisely this description appears to us to be the present dispute respecting the contagious nature of the cholera, and it seems to be protracted by a like combination of events. We are inclined to believe that the cholera is entitled to a rank among the *contagious diseases*, but that, whilst under certain circumstances it is not easily communicated by personal exposure, it is, under others, developed *de novo*, without the aid of any such exciting cause. This opinion seems to be justified by the whole body of facts now before the profession, and will, we suspect, be, eventually, the settled belief of the faculty of every country.

For the reasons of this opinion, we can only refer the reader to the mass of facts, and the conflicting testimony, already published. To bring, however, a single proof of the probable correctness of this opinion, we will relate a few cases in which the disease has absolutely and without any possibility of doubt, been produced by contagion, and one or two in which it has, with equal certainty, occurred without the existence of any such exciting cause. The first examples we take from the London Medical Gazette:—

Towards the end of January, two persons met at a hostelry in Morpeth, a small town in Northumberland, which the epidemic had not then reached. One had come from Hawick (a distance of fifty-five miles), to sell cattle; the other had just arrived from Newcastle, in which cholera was at that time prevalent. During their short stay, the latter was seized with cholera, and died; the former straightway returned to Hawick. He had scarcely reached home ere he was taken ill with the same disease,

and which speedily proved fatal to him. His brother, his nephew, and his servant, all in direct communication with him, were next successively attacked; his clothes having been sent to a woman to be washed, she was also seized, as were next her child, and subsequently her husband—who died. The medical man, who had been called in to attend these cases, was then attacked, and, in forty-eight hours after, his sister, who resided with him, was also taken ill. Although the place contains five thousand inhabitants, only seventeen persons in all were affected; and of those, every individual had been exposed to whatever influence communication with preceding cases of the malady is capable of effecting. We have thus a healthy person, going to a distant town, where cholera is unknown—residing in a public house with a traveller from an infected district, who sickens and dies—we have him returning home to a retired country town, bearing with him a malady with which those only become affected who have intercourse with him mediately or immediately, while the rest of the inhabitants remain free from the epidemic or any other form of the disease. These facts rest on authority which is unimpeached, and, we believe, unimpeachable.

Again: a woman (A) being taken ill with cholera (April 5th), was removed to her brother's, in Halfmoon street, Bishopsgate—the disease not having shown itself in that vicinity. She occupied their only room, and slept first in the bed of one of the boys, but, this being found too small, was subsequently placed in that of her brother and his wife. The boy, who had been displaced, gladly took possession of his bed again, the sheets, we are expressly told, having been suffered to remain. As the night advanced, another change was adopted; a temporary bed was placed before the fire for the invalid; she was removed to it, and her brother now occupied his own bed, thus set at liberty, while his wife remained in attendance on the patient. Next morning their visiter was taken to the Cholera Hospital, and the family returned to their usual habits, no change or purification of bed-clothes having been adopted. April 7th, (B), the boy whose bed the original patient (A) had occupied, was seized with cholera, and died. Same day (C), his father, was taken ill, and died. April 8th, (D), the daughter of (C), was seized. April 9th, (E), another daughter, was also seized, and died; while (F), the wife of (C), had the premonitory symptoms, but recovered under prompt and efficient treatment. Here are six cases occurring in a street where no other instances of cholera had taken place; they are confined to the second floor of a house—those above and those beneath being alike unaffected. Still the evidence of contagion did not satisfy the neighbors, one of whom, occupying a different part of the same house, took compassion on the widow and her orphans, received them into her apartment, and, on the 19th, she herself died of cholera.

We now pass to the cases of the second description.

During the late prevalence of cholera in London, several cases were reported in the Mill-Bank Penitentiary—a place, the principle of which is to exclude the inmates from all communication with each other or with those outward. On inquiry, this report was ascertained to be well founded—six well-defined cases having occurred within ten days preceding the 3d of April. Of these six, three proved fatal—one in ten hours, and the other two in about fourteen—a sufficient proof that the

disease in question was actually malignant cholera. The prison had been, up to the appearance of these cases, perfectly healthy, and quite free from bowel complaints ; but cholera was said to be in the neighborhood. We regard this fact as one of the most interesting, as it is one of the best authenticated, with which we have been made acquainted in regard to this disease.

Dr. HEBERDEN, from whom we obtain the above fact, advances the idea, that, where the disease arises from causes apparently so insufficient, there must exist, in the individual so attacked, a strong predisposition to its development, and that this co-operating with the miasm in the atmosphere, constitutes the cause of disease. But, whatever may be the explanation of the highly respectable reporter, no doubt can exist of the occurrence of the cases, and of their development independently of any personal exposure to the sick. This, then, forms the second part of our brief illustration, and the reader will not consider us wedded to a theory when he deliberates on the opinion herein expressed, and brings to its test all the facts respecting cholera which have been so profusely laid before him within the last two or three years, and the circumstances attending the prevalence of the measles, hooping cough, and other diseases known to be contagious.

The error of the controversialists seems to have been in adhering to the *unity* of the cause :—in supposing that if a disease is ever propagated by contact with the sick, it cannot be produced in any other manner. To show that this is an error, and to close the present paper, we will merely add, that, in the Mill-Bank Penitentiary, the same institution in which the cases of cholera above related occurred, there took place, about the beginning of the last year, a case of *smallpox*, under circumstances precisely the same, and equally inconsistent with the supposition of contagion. The subject was a man who had been several months in the prison, and had had no communication personally, or by clothes, or by letter, for a length of time exceeding all possibility of its introduction by such means ; nor had any case of smallpox been in the penitentiary, though the disease was rife in the neighborhood. The appearance of smallpox under these circumstances is, we believe, very rare ; but we have known cases almost, if not altogether, as isolated, nearer home.

If these, our views of the cholera, are correct, the necessity of quarantine restrictions is so evident as to require no comment. The disease may, and probably will, reach us, notwithstanding such restrictions ; but that general would fall far short of his duty, who should leave the main road open to a formidable enemy, because there existed an obscure and circuitous pathway by which he might possibly gain access to his territory.

Treatment of the Cholera.—Among the numerous publications on this subject from the English press, we notice one by D. M. Moir, Surgeon,

a gentleman well known in the literary world as the "Delta" of Blackwood's Magazine. It is entitled "Practical Observations on the Malignant Cholera," and is thus spoken of in an English Journal:—

"Mr. Moir's Practical Observations will be extensively read. They are the result of his experience in the small town of Musselburgh, where, in the course of three weeks, the deaths from cholera alone exceeded the average annual mortality of the parish. There are many practical remarks which deserve to be well considered by the profession, as they differ somewhat from received principles. Bloodletting in the collapsed stage, he says, is a most destructive expedient, and only hastens the catastrophe. Solid opium (as a stimulant) is his great remedy for this stage: it may, he says, be exhibited with brandy; and he states it as the result of the experience of most northern practitioners, that the reaction is not in proportion to the stimuli employed, but in proportion to the collapse; which is a very important proposition. He objects to mustard, and to the permission sometimes given to drink water; but recommends grateful stimulants throughout, with hot external applications."

Remedy for Ophthalmia, Discovered by Dr. Seeds, R.N.—This old and zealous physician, whilst laboring under an obstinate attack of ophthalmia, determined to try the effect of an external application. It removed the inflammation in his eye with great rapidity, and believing that what was of service to himself would also prove serviceable to others under similar circumstances, he determined to publish the formula of his preparation. Mr. Guthrie, with his usual affability and good feeling, allowed Dr. Seeds to try the effects of the application at the Ophthalmic Infirmary, in Chandos Street. The results we believe were satisfactory. The following is the formula, with the mode of using it:—

R. Sp. æth. sulph. c. ʒi.
 Sp. ammon. comp. ʒi.
 Sp. vini camph. ʒi. M.

The lotion is applied over the eye-lids, forehead, and temples, in acute and chronic ophthalmia, and also introduced into the nostril with the point of the finger.

Local Application of Dolichos in Palsy.—M. Græfe, in his Clinical Surgery, also mentions that he has used the down of the *Dolichos pruriens*, as an external application to paralytic limbs, with advantage. His plan is to cover the part with a layer of the cowhage, laying paper over it, and maintaining the whole by means of a roller. After a few minutes, a slight degree of itching is experienced, which gradually augments, and is soon followed by slight cutaneous inflammation. The application is then removed. After the inflammation has subsided, the remedy may be used again, and a third time. According to M. Græfe, some of his patients experienced only a diminution of the paralysis; others were relieved only for a certain time, and some were permanently cured.—*Journal für Chirurgie n. Augenheilkunde.*

P. S.—Since the foregoing was put in type, we have received advices from Canada, announcing the introduction of the cholera, its rapid spread and unexampled fatality, in Quebec and Montreal, and its appearance at Sorrell, St. John's, and La Prairie. The disease was imported into the former place, by the ship Carricks, from Dublin, on board which 41 per-

sons had died of the disease on the passage. The first case broke out at Grosse Island, where the above-mentioned ship was at quarantine, and it extended with great rapidity, both among the emigrants and citizens. There appears, by the latest accounts (11th June), to have been, at the Emigrant Hospital, 39 cases and 26 deaths, and in private dwellings 20 cases and 15 deaths. A gentleman, who arrived at New York from Quebec, which city he left on the 12th, states, that he witnessed the first symptoms of the disease in *five* emigrants, whilst standing on the wharf, and, before they could be conveyed to the hospital, *two* of them died. He also adds, that a servant woman in his boarding house took the disease, and died in *three hours*.

The arrival of this malady on the American continent, and at places with which we have direct and constant communication, should awaken us to the importance of an immediate preparation to meet it among our own inhabitants. We propose next week to go more into the details of this interesting part of the subject. The authorities of Albany, Troy, and New York, have very judiciously adopted active measures to retard, and, if possible, prevent the introduction of the disease into those cities, and we trust our own vigilant police will extend to the inhabitants of this place every possible protection, as well as provide suitable hospitals for the reception of the sick, in case their efforts to exclude it shall be unavailing.

In Liverpool, the cholera has existed for some time; but a letter, under date of the 16th May, states, that such precautions had been adopted, that its ravages were not great. In Baltimore, the disease would probably have been introduced under circumstances the same as those attending its introduction into Quebec, had not the most rigorous measures been enforced upon the cargo and crew of the ship *Breuda*, arrived there from Liverpool. We trust these measures, now in operation, may be successful in excluding so unwelcome a visitor.

MR. N. P. WILLIS, who, our readers will recollect, visited the Hotel Dieu to see the cholera, and concluded the next morning that it was not contagious because he was not sick, shortly after fell ill of the disease, but, we are happy to add, is recovered. His opinion will now, most probably, be equally decisive on the other side of the question.

Whole number of deaths in Boston for the week ending June 15, 39. Males, 18—Females, 21.

Of measles, 4—catarrh, 1—inflammation in the bowels, 1—scarlet fever, 5—stoppage in the bowels, 1—throat distemper, 2—dropsy, 1—lung fever, 1—consumption, 2—abscess on the lungs, 1—dropsy on the brain, 2—sudden, 1—inflammation in the head, 1—drowned, 3—hydrocephalus, 1—infantile, 1—brain fever, 1—unknow, 3—pleurisy, 1—intemperance, 1—diseased womb, 1—old age, 2—inflammation on the lungs, 1.

ADVERTISEMENTS.

MECKEL'S ANATOMY, VOL. II.

THIS day received, by CARTER & HENDÉE, corner of Washington and School Streets—Manual of General, Descriptive, and Pathological Anatomy, by J. F. MECKEL, Prof. of Anatomy at Halle, &c. &c. &c. Translated from the German into French, with Additions and Notes by A. J. L. JOURDAN, Member of the Royal Academy of Medicine at Paris, &c. &c. &c., and G. PRESCHET, Adjunct Prof. of Anatomy at the School of Medicine, &c. &c. &c. Translated from the French, with Notes, by A. SIDNEY DOANE.

June 20.

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VOL. VI.]

WEDNESDAY, JUNE 27, 1832.

[NO. 20.]

POISONING WITH COLCHICUM.

DAVID COLE, æt. 44, a stout, muscular man, feeling pains in his bowels, to which he was subject, about six o'clock in the morning of the 8th of March last, swallowed, believing it to be rum, about two oz. of wine of the seeds of colchicum. He immediately discovered his error, but, knowing its effects in a small dose, conceived it would be followed by vomiting and purging sufficient to avert mischief. He sought no medical advice until four in the afternoon, when I first saw him. He was sitting in a chair, his elbows on his knees, and told me that he felt no inconvenience for an hour and a half after taking the dose, when pains in the bowels came on, but that he continued his labor until eleven o'clock, when pains in his stomach and bowels, retching, and copious vomiting of a yellowish fluid, compelled him to desist.

Four o'clock, P. M.—He describes the pain in the epigastrium as agonizing, and says it is like a knife piercing him. The retching is incessant, and extremely violent, but no fluid is evacuated; there is tenesmus; a small quantity only of fecal matter has passed. No tenderness upon pressure, either in the epigastrium or abdomen. The appearance of the tongue is natural; the pulse small, slow, and feeble; breathing not much affected; the feet cold. His countenance is anxious; features sharp; his cheeks, lips, and palpebræ, purple. Upon attempting to walk, says he thinks he shall lose the use of his limbs. A mustard emetic was given, followed by copious draughts of warm water and gruel. These were soon returned, with apparently no mixture. Cathartic medicine was given, and immediately returned. Was put to bed; warm bricks were applied to the feet, and hot flannels to the stomach. To take forty drops of laudanum immediately; gruel and coffee plenteously.

Nine o'clock, P. M.—The retching, vomiting, and pain in the stomach, continue with undiminished violence; the fluid vomited contains a sediment like coffee-grounds; very thirsty; has made little water. Twenty drops of laudanum every two hours; a blister to the epigastrium; sinapisms to the feet; an enema every hour.

9th.—Six o'clock, A. M.—Has passed a sleepless night; the symptoms remain unaltered. The eyes are sunk; the feet warmer; skin generally natural; no perspiration; pulse scarcely to be felt; respiration hurried; great thirst; no urine. **Enemata returned without fecal mat-**

ter.—Camphor, calomel, and opium, every three hours ; an effervescing draught, with brandy, every hour.

Eight o'clock, P. M.—The retchings and pains continued until four o'clock, when the bowels were much distended. Has since had copious liquid stools, dark colored, and very offensive, and expresses himself better. Makes a few drops only of urine ; loses his sight for a minute or two after getting out of bed to the night-chair. The pulse is scarcely perceptible, and occasionally intermits. He is perfectly sensible, but talks with effort ; calls continually for water.—Aromatic confection, carbonate of ammonia and camphor mixture, with brandy, every hour.

10th.—In the course of the night his stools passed involuntarily, and in great numbers ; his weakness increased, and he died a few minutes before five o'clock this morning, perfectly sensible to the last moment.

Sectio Cadaveris.—The face, neck, upper and front part of the thorax, insides of the arms, front of each fore-arm, and the insides of the thighs, were covered with patches of a purple efflorescence, as were also the integuments of the scrotum and penis. The muscles of the fore-arm were very rigid, and their fibres contracted into hard knobs. The great omentum, instead of covering the front of the intestines, was turned up between the stomach and convex surface of the liver behind, and the diaphragm in front, from the efforts of vomiting. There was increased redness in a portion of the peritoneum covering the jejunum. The stomach and bowels were covered with a thick, tenacious, but colorless mucus. On a portion of the mucous membrane of the stomach, near the cardiac orifice, and corresponding to its great arch, was a patch of redness about the size of a half-crown piece ; its secretion here did not vary in tenacity, quantity, or color, from that of any other portion of the membrane. Upon dividing it at this part, its section presented nothing beyond its usual appearance ; there was no pulpiness, no thickening, but a small quantity of blood was effused between it and the muscular coat, giving reddened internal appearance. Careful examination of that portion of the reddened peritoneum covering the jejunum demonstrated the like hæmorrhagic condition of the bloodvessels. Blood was effused between the peritoneal and muscular coats, but the mucous membrane corresponding to this portion was perfectly healthy—at least it was perfectly free from inflammation. No other trace of inflammation was observed in any other portion of the abdominal viscera. The gall-bladder was distended with healthy bile : the urinary bladder was contracted and empty.

The pleuræ costales were much reddened. The lungs were of a most beautiful purple color externally, did not crepitate, and were gorged with black blood, which had become effused, underneath the pleura pulmonales, in spots of various sizes ; these were very numerous about their roots and edges.

The pericardium contained no fluid, nor was it reddened ; yet numbers of ecchymosed spots were observed in that portion of it attached to the central tendon of the diaphragm, and also thickly interspersed upon the surface of the heart itself, more especially about the centre of the coronary vessels. Heart flabby, and easily broken down. The cavæ,

the right auricle and ventricle, and the pulmonary artery, were filled with black blood, partly coagulated, partly fluid ; the left auricle and ventricle empty.

I regret that neither my own entreaties nor the influence of the coroner were sufficient to obtain permission to examine the head. So little were the functions of the brain disturbed during life, that it is probable no other diseased appearance would have been observed, save a participation of its sinuses in the distention of the right side of the heart.

The deleterious effects of the bulb of *colchicum* are said to depend, in a great measure, upon the season of the year when it is collected ; but the seeds matured only in the spring must possess uniform properties.

Colchicum is classed, by most writers, as an acrid or rubefacient poison ; and poisons of this class are defined as producing inflammation when applied to the intestinal canal, and, if taken in sufficient quantity, the same effects as the corrosive. No such effects, however, followed its exhibition in this case ; for, in addition to the want of the usual post-mortem appearance of inflammation, I consider the patches of redness, in the stomach and peritoneum, too partial for inflammation from such a cause. The jejunum, too, possesses a singular immunity from disease, as is shown by the quotation of Andral's table, in Macintosh's *Practice of Physic*. The hæmorrhagic condition of the system, observed here, accords with the observations of Dr. A. Thomson, published at p. 281 of the *Lancet* for 1831, who says, that *colchicum* has an effect of producing effusion of blood from all the mucous tissues, the skin alone excepted, and that a peculiar laxity is observable in the cellular membrane, producing a diminution, if not total destruction, of its adhesive powers. The purple efflorescence of the skin, the effusions of blood between the coats of the stomach and the jejunum, and underneath the pleuræ and the pericardium, in this case, all prove the accuracy of these remarks. I feel satisfied that not the slightest inflammation existed in either of the above-mentioned structures ; for, with respect to the stomach and bowel, where redness was perceptible, the mucous membrane was unchanged in structure ; there was neither pulpiness nor thickening, nor did it present a more vascular section than other portions of the membrane : a very important observation, too, its secretion was not changed in quantity or consistence. With respect to the lungs, it was difficult to trace, or rather distinguish, either bloodvessels or bronchiæ ; a section of them seemed more like the section of a clot of venous blood, so greatly were they congested with black blood. The state of the breathing during life bore no kind of proportion to this appearance.

Colchicum is also classed as a poison acting upon the nervous system by absorption, and, through this medium, exerting a peculiar influence on the arterial circulation ; and this appears to be its true *modus operandi*. Sir Everard Home found, by direct experiment,* that its effects were the same, whether taken into the stomach or introduced into the jugular vein, only that, in the latter case, its effects were more quickly developed than in the former, and hence he concludes that its action

* *Philosophical Transactions* for 1816, p. 257.

upon the different parts of the body is through the medium of the circulation, and not from its *immediate* effects upon the stomach and intestines. The primæ viæ have been frequently, and perhaps generally, found inflamed, where colchicum has been taken in large quantities ; but this is no proof of its *direct* effects upon them, since arsenic will produce inflammation there (the stomach and bowels) when applied to the external surface of the body ! * Sir Everard Home found that colchicum reduced the pulse in all cases where it was ordinarily used, and this is a material help in enabling us to trace the order in which the three great functions of the body are severally affected by it. It would seem that the heart is deprived of nervous energy, and in consequence beats feebly. Now, by the natural process of inspiration, the trachea and bronchiæ, with their minute ramifications, together with the air-cells, are distended with atmospheric air—an elastic fluid. At the standard of health, the heart contracts with a force probably three hundred times greater than the force exerted by the pressure of the air in the lungs, and the blood, instead of being impeded, flows more freely ; hence the important connexion between the circulating and respiratory functions. We have seen that colchicum, in an ordinary dose, depresses the heart's action. What must then be expected to follow the administration of a dose like that in question ? for it does not appear to be one of those remedies, the principle of whose action is altered by its dose ! The action of the heart is almost paralyzed ; it can no longer overbalance the pressure exerted by the air in the lungs ; the blood can no longer be propelled as usual through their vessels ; congestion takes place in the veins ; the blood is unarterialized (and, whether its exposure to the action of the fibrillæ of the ganglial system of nerves, in its passage through the arteries, has any influence in effecting this essential change, the lungs are not able to exert their necessary preparatory action), and unarterialized blood gradually destroys the action of every part through which it circulates. The organs of digestion, assimilation, circulation, and secretion, were severally deranged in function, whilst the intellectual and locomotive powers were little affected. This proves the great extent to which the sympathetic or ganglial system of nerves was affected, and the almost immunity of the cerebro-spinal system.

It must be obvious that no treatment in this case held out any hope of the patient's recovery. When first I saw him, he had swallowed the dose ten hours, when time had been allowed, over and over again, for it to enter the circulation. An emetic, or stomach-pump, employed before this had taken place, would have dislodged it, and probably have saved his life.

Since poisons act in so many different ways upon the animal economy, some primarily, through the medium of the nerves, without being absorbed, producing death by suffocation from paralysis of the respiratory muscles, or by syncope—others by entering the circulation, and exerting their influence on the heart, brain, and alimentary canal—others through the same medium on the spinal marrow, and, lastly, others having a purely local action on the mucous membrane of the alimentary

* Paris's Pharmacologia, sixth edition, Vol. I., p. 248.

canal—and since this difference in their physiological actions renders a plan of treatment safe and justifiable in some instances, which would be followed by the most tragic effects in others, it behoves us to be aware of the order of the parts of the system through which they exert their influence ; for, as each has its own *modus operandi*, it is by a knowledge of this only, that we can arrive at scientific and safe indications of cure. Magendie, for instance, found that a state of depletion facilitated absorption, but that a state of congestion impeded it. How important a knowledge of this fact is in the successful treatment of two familiar poisons—arsenic and corrosive sublimate ! Dr. Paris has classed the former with those poisons which produce their effects by absorption—the latter with those having a purely local or corrosive action. Both are followed by inflammation of the *primæ viæ* ; yet the experiments of Magendie teach us, that, if we deplete to subdue the inflammatory symptoms when arsenic has been taken, so long as any portion of it remains in the stomach and bowels, we necessarily hasten death by promoting its absorption. On the contrary, corrosive sublimate, having a local action, and not being absorbed, needs no such precaution : we may bleed from the outset.

The same principle is applicable to the poison of colchicum. It produces its effects by absorption. We should, therefore, be very cautious how we bleed, to subdue any inflammatory action of the stomach and bowels, until the poison has been completely ejected from them.

Dudley, April 19th, 1832.

THOMAS FEREDAY.

DISEASES OF NEW HAVEN.

Observations on the Diseases which prevailed in New Haven, Conn., during the Winter of 1831–2. By V. M. Dow, M.D.

Communicated for the Boston Medical and Surgical Journal.

ABOUT the 15th November, the weather suddenly set in severely cold and boisterous, and continued so for a full month without interruption, the earth's surface being covered with snow during nearly the whole time. The two succeeding months, on the contrary, presented nearly every variety of weather of which our winters are susceptible in this latitude, and were remarkable only for irregularity and sudden vicissitudes. Immediately on the commencement of winter, cases of catarrhus epidemicus, rubeola, and pneumonitis, began to present themselves. Cases of scarlatina were also frequent during the winter, though not more so than during the summer previous.

Influenza, or Epidemic Catarrh.—Making its appearance simultaneously with the sudden arrival of cold weather, this disease was naturally enough considered, by the vulgar, as an effect of this atmospheric peculiarity ; while by others, more philosophic, it was attributed to an unusual *dryness* of the air, which was demonstrated to obtain, during the first month at least of the epidemic, to such a degree that the air, during this period, contained only about half its usual supply of watery vapor.

This latter circumstance might, with much apparent plausibility, be admitted as the cause of influenza, had we never known of its having existed independently of it. But, if we turn our attention to the same epidemic as it appeared in England, we shall find that it commenced there in the month of June last—a month, according to accounts from that country, “remarkable only for a high temperature, a *singular humidity* of the air, a soft wind from the south-west, and a bright, hot summer’s sun,” the thermometer generally ranging from 60 degrees to 75 degrees, Fahr. If we contrast this description with that of the first thirty days from the commencement of the epidemic in New Haven—the weather suddenly becoming unusually cold, boisterous, and stormy, with northerly winds, and, instead of humidity, with a remarkable dryness and sharpness of the air—and if we consider that, notwithstanding all the diversity of the season, the epidemic presented substantially the same features in both places, we shall be compelled to place very little credit to the agency of the atmosphere in causing this disease.

In China it was noticed in the month of January, 1830 ; in Manilla, in September, 1830 ; in France, in May and June, 1831 ; in England, in June and July, 1831, and in the United States it prevailed chiefly in December and January, 1831–2.

This wide-spreading epidemic, which has so often traversed the habitable globe, has, in its different visitations, appeared so uniformly in the same garb, and been so often and well described, that it is scarcely necessary to enumerate its symptoms. Suffice it to observe, that, in its late return, it wore the same characteristic marks that it had done previously. The catarrhal affection was attended by the same fullness and pain of the head; the same languor, oppression, and anxiety at the præcordia; the same quick, contracted, half-suppressed pulse; the same dense, white, short fur on the tongue, and the same anorexia, sometimes amounting to nausea. Efflorescent patches, appearing to the eye like erysipelas, but with more accurately defined margins, suddenly making their appearance, and as suddenly vanishing or shifting to some other part of the skin, were observed in several cases, especially of children. Contrary to what has usually been observed of influenza, children were not exempt from it during the past winter. One infant whom I attended was only ten days old, while great numbers had the disease at the age of a few weeks or a few months. In fact, the disease not unfrequently proved fatal to infants who had it, while it was not attended with danger to those from two years of age upwards.

In treating the disease, bloodletting was rarely resorted to, as it seemed not indicated by the pulse or other symptoms. A few doses of calomel, of five or eight grains each, by itself or combined with Dover’s powder, given at intervals of twenty-four hours, exerted the best effect in restoring the natural secretions of the alimentary canal, and was the only active medicine usually required. Expectorants and mucilages were of some use, and, in the latter stages of the disease, wine and alcohol were sometimes useful.

Rubcola.—Never was this disease more prevalent in this city than during the past winter. It appeared about the same time with the influ-

enza, and, as it had not visited us for several years previous, it found a vast many obnoxious to its attack. It is even doubtful which of these two diseases may have produced the greater number of patients. Besides children, a great many adults suffered from it—many who had lived through successive epidemics of measles with impunity—and such were much more severely affected by it than children.* Infants at the breast more often escaped an attack of measles than those of any other age; it being often the case, that, of several children in the same family and same room, all would have the disease except the infant. A similar immunity was also enjoyed by infants in relation to scarlet fever, during the same period, though there were exceptions, of course, in both cases.

The disease appeared in its usual form, was rather unusually intense, but not malignant, nor yet so benign as it is often witnessed. In proof of its benignity, it is sufficient to remark, that most of the cases terminated favorably, even where no medical aid was called, and, what is still more remarkable, under a kind of domestic management the very worst that could have been devised. This remarkable method of treating measles consists in keeping the patient hot in bed, and plying him with all manner of stimulants internally, from the first appearance of the catarrhal affection until he gets well or dies, or until the good dames think he will die, when they usually call a physician. Treated in this manner, it is only remarkable that a greater number of cases did not terminate in bronchitis, phrenitis, or pneumonitis. But it is all done with the intention, in the first place, of bringing out the eruption, and, in the second place, of keeping it out. In fact, a great many cases of influenza were treated in the same way, for a week together, on the supposition that they were measles, and with quite as much propriety as if they had been measles. The first symptoms of measles and those of an attack of influenza, as it appeared in children, so exactly simulated each other, that they could not in all cases be distinguished in the early stage of the complaints. In some cases, the two diseases actually co-existed in the same patient, one having taken the lead for several days, or a week, or even a longer time. Now it scarcely need be observed, that, as respects the management to be adopted in a given case, under the eye of a physician, it matters not a whit whether the case be measles or influenza, or whether it should be called lung fever, or the rattles, or the phthisic; since the disease must be treated for what it is, and not according to what it may be called.

On the whole, those cases did best which were subjected to a moderately antiphlogistic treatment, though severe cases of adults often required free depletion by venesection. In the few cases which proved fatal, death was usually the result of bronchitis or pneumonitis, superinduced upon the measles by hot regimen and stimulants, or allowed to take place by not adopting an opposite plan of treatment sufficiently early.

Pneumonitis, of which we generally see specimens every winter, was, during the last, rather more rife than usual. Its accompanying fever was usually a synochus, but few cases being sufficiently entonic to require bloodletting. Its symptoms, during the first two or three days from the

* This circumstance was remarkable also in this city and vicinity.—Ed.

attack, were often well calculated to mislead in forming a diagnosis. One case, for instance, came on with severe pain of the head, succeeded by delirium : another was ushered in with obstinate vomiting and extreme irritability of stomach ; while other cases commenced with severe pain in a limb, or some other part of the body foreign to the lungs. Two, three, or even four days frequently elapsed, with one or other of the above affections, before any pneumonic symptoms made their appearance. After the regular symptoms had come on, the pain and disease would, in many cases, shift from one lung to the opposite, on or about the fifth day. That the *disease* shifted as well as the pain, appeared evident by auscultation. At or about this period, we usually observed symptoms of a crisis, which, in severe cases, were often deceptive, and not unfrequently followed by worse symptoms than had before been present. The sputa were always more or less bloody, and it was observed that those recovered soonest, and encountered the least hazard, who expectorated the most blood.

A remarkable disparity between the frequency of the pulse and that of the respiration was also observable ; probably it always exists in this disease, but is not sufficiently noticed by authors. In health, there are four pulsations of the artery to one respiration ; and, in fevers not affecting the lungs particularly, although the frequency of the pulse may be increased to 110 or 130, the respiration will be found to be also increased in frequency to a degree very exactly corresponding. But in pneumonitis we often find the pulse beating but twice or three times during a respiration. This disproportionate frequency of respiration evidently indicates diminished capacity of the lungs, in consequence of some portion of these organs having become more or less impermeable to air. Attention to the degree of frequency of respiration, compared by the convenient standard of the pulse, affords us no mean information of the extent of the injury suffered by the lungs, or of how great a proportion of these organs has become inactive.

In the few cases which terminated fatally, autopsic examinations presented engorgement or hepatization of considerable portions of the pulmonary tissue, and rarely some slight adhesions.

The treatment consisted in the pretty free use of blood root, given in doses short of producing either nausea or narcosis ; in administering antimony and calomel in alterative doses ; in blistering, diaphoretics of Dover's powder, &c. Bleeding was sometimes useful at the outset, but rarely was required to be repeated. Cathartics were almost daily necessary, as the bowels were unusually torpid, and surcharged with bilious matter.

Scarlatina, which had existed more or less in this region for several years, with occasional intermissions, seemed somewhat modified during the past winter. Frequent cases of it appeared during this period, but they seemed less typhoid, and had less tendency to gangrene, no fætor of the breath being observable, even where the throat was ulcerated. The eruption was more in form of minute papulæ, than in that of the broadly-diffused erythematic patches so often observed.

Was this modification of scarlatina owing to the coldness of the atmos-

sphere acting as a remedial agent, or to the prevalence of the different epidemic constitution, which brought with it measles, influenza, &c.?

Some few of the cases were benefited by venesection. One patient I bled the second time with advantage. Generally, however, it was sufficient to give one or more emetics of ipecac., procure daily discharges from the bowels, apply ammoniated liniment to the throat externally, and use astringent or acid gargles. At the end of the first week, infusion of bark and snakeroot, with a little wine, were allowed, and these were all the stimulants and tonics necessary.

Cholera.—Not the least peculiarity attending the diseases of the past winter, was an extraordinary tendency to disorders of the first passages. Cases of cholera biliosa were nearly, if not quite, as frequent as they usually are during the months of July and August. In some, obstinate vomiting would come on and continue several days, and be stayed at last by a full dose or two of calomel, to act as a cathartic. In others, the derangement of the alimentary canal showed itself in form of bilious colic, or in form of bilious diarrhœa. But, whatever were the symptoms by which this gastric and intestinal derangement showed itself, it was always to be met successfully by free doses of cathartics, of which calomel, alone or in combination, stood pre-eminent. In short, this peculiar disturbance of the stomach and bowels showed itself more or less in all of the other diseases before mentioned. In all of them, an unusual demand for cathartics was indicated, and these required to be repeated almost daily, to eliminate the ill-conditioned, fœtid, and black sordes. It was even surprising, in some cases, to witness, after ever so free an evacuation of the bowels, how speedily the latter would again become surcharged with vitiated secretions, and call for further evacuations.

None of the above diseases seem to have been unusually severe or malignant, nor was the proportion of fatal cases greater, compared with the whole number attacked with disease, than in ordinary seasons. But there were an unusually large number of persons attacked. From a record of deaths kept in this city, the mortality for the months of December, January, February, and March last, was just about double the average number for the twelve preceding months.

New Haven, June 18th, 1832.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JUNE 27, 1832.

THE CHOLERA.

WE cannot but commend in high terms the vigilance and discretion exercised by our City Government in devising and executing measures to prevent, if possible, the introduction of this pestilence into our borders,

and still more to prepare the city for its reception. By a thorough purification of every house, street, lane, alley, and yard—by presenting to every family the most effectual means of protecting its members from the disease, should it come, and urging on them a rigid observance of local and personal neatness, mental equanimity, and temperance in eating, drinking, and all things else, they do all that can be done by the powers with which they are invested.* Nor should we pass over, without notice, the liberality of the Common Council, who have, by a unanimous vote, placed at the disposal of the health officers the sum of *fifty thousand dollars*, for the purposes of their appointment.

We proposed last week to enter more in detail respecting the mode of meeting the disease on its access. Since then, the Consulting Physicians of the City have offered a report to the government, which contains so much good counsel in a short space, that we shall offer it as a substitute for any further remarks on the subject—all that is left for the physician to do being to follow up the same principles of treatment, varying it according to the symptoms of each case. The free use of the carbonate of soda, in doses of 3i., frequently repeated, has been found very serviceable in some cases of this disease. The REPORT was in the following terms :—

The Consulting Physicians of the City of Boston, having been requested by the Mayor and Aldermen to prepare some instructions for the relief of persons attacked with the Asiatic Cholera, before medical advice can be obtained, and also for the prevention of this disease, report as follows :—

There are two kinds of the cholera cases—one excessively severe and sudden in its attack, the other comparatively mild. The former requires the immediate use of remedies ; the latter may wait the attendance and advice of a physician.

The symptoms of the violent form are great coldness, dizziness, sickness of the stomach and vomiting ; diarrhœa, small watery discharges, violent cramps in every part, and a livid color of the body.

The following remedies should be used directly, when the symptoms occur :—

1st. Give for an adult 50 drops of laudanum, in a wine glass of hot brandy and water,† equal parts of each, and repeat it every 15 minutes, until four doses have been taken, so as to give, in the whole, 200 drops ; if thrown up, repeat the laudanum in a teaspoonfull of brandy.

2d. Apply bags of hot sand to every part of the body and limbs of the patient. Large woollen cloths, wrung out of very hot water, may be applied in the same way, provided they are kept from cooling.

3d. Make a poultice or paste of common mustard, mixed in the same way as for ordinary use ; apply this hot over the whole surface of the bowels.

4th. Give an injection made with a gill of starch, arrowroot, or gruel, with one teaspoonfull of laudanum in it.

* In connection with this subject, we would notice and recommend, for universal use, a small machine called a "Stench Trap," by which every family, at a very trifling expense, may entirely exclude from their premises any effluvia from drains and sewers. They are affixed to sinks, and may be had of J. G. LORING, in Merrimac Street.

† We should prefer lemonade to water, if readily obtained.—Ed.

Milder Form of the Disease.—This is often preceded by a looseness of the bowels and sickness at the stomach. When these symptoms come on, the patient should omit the use of solid food, and take as little as possible into the stomach. A proper nourishment in this state is arrow-root or rice water. For drink, small quantities of pure water* or tea.

The patient should keep in bed. If the bowels have not been freely emptied, an even dose of powdered rhubarb may be given. This is to be followed by an injection, every four hours, of half a pint of flaxseed tea, with twenty drops of laudanum in each. The surface of the bowels should be blistered. If the patient is much exhausted, a teaspoonfull of tinct. of cinnamon, in half a wineglassfull of hot water, may be given, once in half an hour, for three or four times.

Means of Prevention.—Cleanliness, domestic and personal, is of the first importance in the prevention of cholera. Every house and shop, especially provision stalls, should be made clean and sweet. Out-houses should be freed from all offensive matter. Cellars, especially, should be cleared of putrid vegetables, ventilated, and thoroughly dried. Beds and bed clothing should be daily exposed to currents of fresh air.

Personal cleanliness must be carefully attended to. Those who can do so should, in hot weather, bathe in sea water two or three times a week, and others should wash the whole body with warm water and soap at least twice a week. Children should not be omitted in this process. As few individuals as possible should live in the same room; and, where a number are found together, means for dividing and giving them more healthy lodgments should be provided at the public expense.

Crowded meetings, especially in the evening, should be avoided.

Food.—In a disorder which affects the stomach and intestines, all attempts at prevention would be useless, without a most strict attention to food. A fact, established by the experience of all Europe and Asia, is, that the “cholera attacks the tippler,” and makes him his first victim. A little excess, even in wine, exposes to the disease. Liquids of all kinds should be moderately used. The safest are common tea, and teas made of domestic herbs, taken warm. Acid drinks are pernicious. Cold water, if pure, may be taken in moderate quantity, but, when the weather is hot and the thirst great, the mouth, the hands, and the face, should be previously washed.

Excess of solid food is a sure preparation for the disease. The best articles of food are bread, eggs, fresh meat, fresh fish, and rice. Perfectly good and thoroughly boiled vegetables stand next, as potatoes, asparagus, etc. All uncooked vegetables, as salads, are dangerous. Fruits, unless very fine, had better be avoided. Strawberries, taken by themselves, or with the addition of a little wine, are the least likely to do mischief. Pastry, preserves, and pickles, scarcely need be mentioned as requiring a total prohibition. All unusual fatigue and exercise, exposure to cold, wet, and to the night air, should be avoided. The dress should be carefully regulated according to the changes of temperature. Flannel next to the skin is universally recommended, and to those of a more delicate habit is indispensable.

What we have already said on the subject of ventilation, will make it sufficiently understood that we believe the pure air of the country to be more salutary, during the hot season, than that of a large town. While,

* This article is with difficulty obtained in this place. The water of the aqueduct is to be preferred, unless perfectly sweet rain water is to be had.

therefore, it is not indispensable to flee the city on the appearance of the cholera, and while we doubt not it will pursue a different course from the yellow fever, and infect the country if it does the town, we should advise those who have the means of selecting their residence, to quit the frequented walks of men, and seek retirement and sequestration during the prevalence of the epidemic.

Finally, we recommend *a good conscience, and a fearless performance of duty*, as the best of all preservatives against this disorder. It is well known to physicians, that the most timid are most frequently the subjects of epidemic diseases. This is peculiarly the case with cholera, because it affects the nervous system. We therefore strongly urge on our fellow citizens a perfect confidence in the wisdom and goodness of God, and a full assurance that those who perform His will, by the devotion of their labors to the sick and suffering, are taking the surest means to escape the attack of this disease.

Signed,

JOHN C. WARREN,
BENJAMIN SHURTLEFF,
GEORGE C. SHATTUCK,
GEORGE HAYWARD,
JOHN RANDALL.

MASSACHUSETTS REPORT ON CHOLERA.

THE committee appointed by the Counsellors of the Massachusetts Medical Society, to report on the subject of the cholera, have published the result of their labors at a fortunate moment, and we have perused it with the greatest satisfaction. It appears to contain a summary of all that is at present known respecting the several points of the disease, and is drawn up with great care, ability, and impartiality. The committee have taken the part not of an advocate, but of a judge, and their report is a lucid charge, presenting, in a clear and unprejudiced manner, all the important evidence now before the public, respecting the nature, history, treatment, &c., of the disease, and leaving the profession to form their opinions on this evidence. We hope the circulation of this report will not be limited to the fellows of the Society; it is decidedly the best production on the subject we have yet seen, and should be in the possession of every member of the faculty, and studied with fidelity and confidence.

No room is allowed us at present for a notice of the views presented by the committee. Reserving their minds open to the influence of the further testimony which will be developed during the future course of the disease, they have not shrunk from a proper expression of the conclusions to be drawn, from the history of the disease, respecting the disputed point of contagion. *So far as present evidence goes*, they incline to the belief, that the preponderance is in favor of the contagiousness of the disease, or its capability of being communicated by the sick to the well, but that its virus or miasm is not capable of being conveyed, certainly to any great distance, by means of merchandise, excepting,

perhaps, the immediate clothing of the sick. On this subject of contagion, however, the committee do not deem the past history of the pestilence sufficiently full to warrant a very decided opinion; but the evidence they have adduced in support of its contagiousness is very strong, and appears to us to be unanswerable.

Up to June 18th, the time of our last advices, there had been in Montreal 1635 cases, 312 deaths, and, during the last twenty-four hours, 431 new cases, and 82 deaths. At Quebec there are appearances of an abatement in the malignity of the disease. At Plattsburgh there have been 7 cases of disease *supposed* to be cholera, and 4 deaths; but we trust it may turn out to be some less dreaded malady.

We acknowledge the valuable communications of Professor Tully, and defer the commencement of their publication until next week, as it is desirable that the whole should appear in the same "Monthly Part" of the Journal.—The essay on Contagion, from another esteemed correspondent, was received too late for this number.

Monthly Notice of New Publications.

An Introduction to the Study of Human Anatomy. By JAMES PAXTON, Member of the Royal College of Surgeons, &c., with Illustrations. First American Edition, with Additions by WINSLOW LEWIS, jr., M.D., Demonstrator of Anatomy to the Medical Department of Harvard University.

WE noticed, some weeks since, the appearance of Mr. PAXTON's work on Anatomy, and expressed it as our opinion, that a reprint here, well executed, would be both popular and useful, and would prove a safe, if not a profitable enterprise. It gave us much pleasure to hear that the task of preparing an American edition had fallen into such able hands as those of Dr. LEWIS, and we had no doubt that, under his judicious direction and care, it would be rendered the most useful manual of anatomy among us. We are not disappointed in the result. The text is in many instances remodeled and improved, and several new remarks, of considerable value, are added. As respects the mechanical execution of the work, it is sufficient praise to say, that the excellent arrangement of the plates in the English edition is strictly retained, and that both the typography and the engraving will very fairly sustain a comparison with that of the foreign work. The latter, indeed, deserves particular mention, both for its intrinsic merit, and for having been executed by a native young artist who is but little known to the public. Some of the plates are even better executed than the English, and the clearness of the references is admirably preserved. As an elementary book for students, and particularly for those who commence their studies without having within their reach any

facilities for dissection, it is incomparably the best treatise with which we are acquainted, and it will not fail to afford a most convenient work of reference, to those who, amidst the engagements of active practice, have little opportunity for pursuing minute anatomical researches, but will find it desirable to refresh their memories, from time to time, in regard to the leading and prominent facts in the science. By practitioners in the country, it will in this way be found extremely convenient and useful. In fine, we do not hesitate to express our conviction, that it is only necessary for the value of the work to be generally known, in order to secure it a place in the library of every physician.

Outlines of the Science of Life, which treats Physiologically of both Body and Mind. Designed only for Philosophers, and other Candid Persons. To which are added, Essays on other Subjects. By ELISHA NORTH, M.D., Member of the Connecticut Medical Society, &c.

DR. NORTH is a close and vigorous disputant; his work is marked by a spirit of independence, and, if it does not contain much that is absolutely new, exhibits some new views of the subjects he discusses, and some nervous reasoning. His fundamental principle is, that the phenomena of life are the result of organization, and that those of sensation and reflection, belonging to those of life, require no aid of an immaterial soul in order to explain their production. There are, according to him, six agents in vital powers, perpetually acting within every one, to occasion life. These are—1, atmospheric pressure; 2, caloric; 3, vital steam; 4, oxygen; 5, light; 6, electricity. These powers, and likewise organization, are maintained by solid and liquid food and by the blood, by external heat, light, and electricity.

The property of sensation and volition is occasioned by the united action of sensitive, solid, and fluid matter, and the sentient spirit, aided by caloric, &c., which spirit is perpetually generated from the circulating blood. One of the main distinctions between plants and animals is, that the living matter of the former is irritable merely, while the latter possesses both irritable and sensitive matter. The *nisus formativus*, or restorative power, is common to both. The united configuration of a suitable quantity of the organic spirit of the brain, and the fluid and flabby substance of that organ or sensitive matter, and the organs of sense, are necessary to the production of sensation and thought.

The succession of animated beings is accomplished by sexual organs. The male and female semen are both alive, or they possess vital properties, and their sympathetic union occasions a new being, which has the propensities of the parents.

Such is an epitome, nearly in the author's own language, of his views on the cause of life, and of the animal and intellectual functions. It is

to be remarked, that, in this view, the prime mover or maintainer of life, within the system, is the circulation of blood. This, as Dr. N. truly observes, forms a connecting link between the external means of support and the internal operations of the system. The food eaten is converted into blood. The air breathed, and atmospheric pressure, are necessary to the circulation of the blood. The circulating fluid nourishes and repairs the solid organs, and sustains the animal fluids and spirits. Each organ has its peculiar propensity, or nature and function. The animal spirit, or vital steam, and other fluids, are perpetual stimulants, vivifying all the animal organs. Heat and electricity are also constantly operating. Hence it is evident that life is a forced state, &c.

Voluntary motion, then, thought, the faculties and the passions, are functions of human organized matter, and continue to be so while the requisite stimulus or impulse within is furnished by the circulation of the blood, and the necessary motive power from without, is supplied by atmospheric pressure and by caloric. When, from the failure in the part of either, the stimulus ceases to be furnished, the matter in question parts with these properties or loses its vitality.

In giving this brief sketch of the views advanced by Dr. N., it would be unjust not to add, that he disclaims all scepticism with regard to the fundamental doctrines of religious belief. He considers the proof of a future state to rest simply on the evidence of revelation, as given in the scriptures, and thinks that the cause of religion has been injured by attempting to defend it by arguments derived from physiology. Without admitting the truth of this remark, we shall for the present decline any argument on the subject, as it is our intention, at some future period, to take it up at greater length. Those who possess a taste for abstruse speculation, for whose perusal the work is avowedly designed, will find both amusement and instruction in its careful perusal.

A Treatise on Breeding, Rearing, and Fattening all kinds of Poultry, Cows, Swine, and other Domestic Animals. By B. MOUBRAY, Esq. From the Sixth London Edition, with Additions, &c., by T. G. FESSENDEN, Esq. Boston.

THIS treatise has given us great pleasure. Those of our brethren who reside in the country will also derive from it much practical instruction. The subject it discusses is one that requires much reform among us. Most domestic animals are treated according to former customs, or without much attention or care; but they, as well as plants, are capable of being greatly improved, and rendered more profitable, by an enlightened culture. The mode of effecting this is now laid before the husbandman, by Mr. MOUBRAY, in a very brief, clear, and interesting manner, and the volume is much enhanced in value to the American

cultivator, by the practical additions and alterations of the distinguished editor who prepared the present work for the press. Having ourselves solicited a re-publication of this treatise, we have indulged ourselves in this gratuitous notice of it; for, although not a medical work, it illustrates a subject in which the great body of the profession are more or less interested.

Library of Practical Medicine. Published by order of the Massachusetts Medical Society, for the use of its Fellows. Vol. II. Svo. pp. 263. Boston.

THE plan of the Medical Society of this state, to publish annually a volume containing some standard treatise on practical subjects, was favorably noticed the last year, when we offered some account of the first volume. That contained Smith and Tweedie's works on Fever. The present contains the Principles of Surgery, by Mr. Pearson, and Abernethy's well known Observations on the Constitutional Origin of Local Diseases, and on Aneurisms. The selection is a happy one. The works of Mr. Abernethy are full of instruction to the medical man, and should be familiar to every one who pretends to pursue an enlightened practice. They are, indeed, already in the library of most physicians in this place, but we shall cheerfully suffer the inconvenience of a duplicate, for the sake of extending the benefits of the work to those who will now receive it for the first time. The treatise of Mr. Pearson is more rare, but no less valuable; and, although it might, from the title, be thought exclusively useful to the *Surgeon*, it will be found to discuss, concisely and practically, the numerous common diseases, which, though strictly surgical, are always falling under the care of every medical practitioner.

Whole number of deaths in Boston for the week ending June 23, 26. Males, 10—Females, 16—Still-born, 1.

Of consumption, 6—intemperance, 3—dropsy on the heart, 1—inflammation, 1—measles, 3—old age, 1—scarlet fever, 2—childbed, 2—inflammation on the lungs, 1—marasmus, 1—lung fever, 2—typhus fever, 1—unknown, 2.

ADVERTISEMENTS.

MECKEL'S ANATOMY, VOL. II.

THIS day received, by CARTER & HENDEE, corner of Washington and School Streets—Manual of General, Descriptive, and Pathological Anatomy, by J. F. MECKEL, Prof. of Anatomy at Halle, &c. &c. &c. Translated from the German into French, with Additions and Notes by A. J. L. JOURDAN, Member of the Royal Academy of Medicine at Paris, &c. &c. &c., and G. PRESCHET, Adjunct Prof. of Anatomy at the School of Medicine, &c. &c. &c. Translated from the French, with Notes, by A. SIDNEY DOANE.

June 20.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

WEDNESDAY, JULY 4, 1832.

[NO. 21.]

CHLORITE OF POTASSA.

On the Chlorite of Potassa. By WILLIAM TULLY, M.D. Prof. Mat. Med. and Therap. in Yale College.

Communicated for the Boston Medical and Surgical Journal.

IN that part of the country in which I commenced the practice of medicine, the salt formerly called OXY-MURIATE OF POTASSA, HYPER-OXY-MURIATE OF POTASSA, and HYPER-OXYGENIZED-MURIATE OF POTASSA, was considerably employed as a remedial agent. On reference to those works upon materia medica which treated of it, I (even then) found the following statements in regard to its powers and applications, and the same still maintain their place in all the subsequent editions of the same books, without either diminution, extension, or alteration.

According to DUNCAN, this salt "always acts as a stimulant, and sometimes as a diuretic." "In some cases, in which it produces little or no effect, it passes off undecomposed in the urine." "Some years ago, it was strongly recommended as an antisymphilitic remedy," and "its use was extended to other cutaneous diseases, and to fevers, as a general stimulant." "Its dose is from three to ten grains, gradually increasing to twenty-five or thirty, four times a day." "At one time many singular cures, performed by its means, were recorded, but it has fallen into disuse," etc.—(See Duncan's *Dispensatory*, article "*Aqua Alcalina Oxy-Muriatica*.")

According to MURRAY, "as a remedy, hyper-oxy-muriate of potassa may be classed with nitric acid," which is placed among the tonics. "It was the hypothesis of nitric acid's acting medicinally, by imparting oxygen to the system, that led to its use." "This salt contains a large quantity of oxygen, which is not retained in it by a strong affinity." "Its operation, in checking or removing the symptoms of syphilis, is similar" to nitric acid. "It increases the force of the circulation, and excites the actions of the system." "Its efficacy as an antivenereal remedy was inferred, from the trials made of it, to be superior to that of nitric acid; yet it does not appear to be equally advantageous as an auxiliary to mercury." "Its operation alone cannot, however, be relied on for certainty, and, as it frequently fails, it is little employed; while nitric acid still continues to be used, with the views already stated."

"The dose in which the oxy-muriate of potassa has been given is ten grains, three or four times a day, and increased gradually to twenty or twenty-five grains."—(See *Murray's Materia Medica*, article "*Potassæ Oxy-Murias*.")

SWEDIAUR says of this article—"Virtutes : oxygenans ; motum systematis arteriosi augens." "Usus : asthenia ; scorbutus ; cachexiæ ; hepatitis-chronica ; syphilis ? morbi cutis ?" "Doses : grana xv.—lx. de die."—(See *Swediaur's Materia Medica*, article "*Murias Hyper-Oxygenatus Potassæ*.")

COXE, in his Dispensatory, copies DUNCAN verbatim ; and GRAY, in his Supplement to the Pharmacopœias, says—"Stimulant gr. i.—ij.," which is also copied by COXE.

Briefly stated, the sum of all these accounts is, that this salt *oxygenizes the system, is antisiphilitic, antiscorbutic, antipsoraic, diuretic, febrifuge, antispasmodic, and general stimulant.*

With these notions, therefore, I first entered upon the use of this salt in my medical practice, beginning with it in spasmodic affections, such as hysterica—next using it in cutaneous diseases, more particularly psoriasis and impetigo—afterwards in syphilis, and finally in the secondary and latter stages of moderately atonic continuous fevers ; but, in all these cases, without any perceptible effects of any sort, except a slight increase of the urinary excretion, altogether too inconsiderable to be of any utility in the treatment of any disease. It is to be remarked, however, that my doses never exceeded half a drachm, four times a day. I now discontinued its employment for some time, but was again induced to use it from the following circumstances. One day, while reading MURRAY's doctrine, that "substances containing a large proportion of oxygen, especially in a loose state of combination," are refrigerants—i. e., according to MURRAY, "such medicines as diminish the force of the circulation"—it occurred to me, that this article might be a pure antiphlogistic remedy, instead of a stimulant. Thus, if the refrigerants operate by imparting oxygen to the system, those articles which contain the most oxygen, and part with it the easiest, are the most powerful refrigerants. Now, as this salt contains as large a quantity of oxygen as any known medicinal substance, and as it parts with it even more easily than any other, it ought to be the most powerful refrigerant, or antiphlogistic agent, which we possess. I resolved to verify or disprove this, the first opportunity ; and accordingly, in the first supposed phlogistic disease which came under my care, I entered, after bleeding, upon its use, with the utmost caution and circumspection, much as I suppose our predecessors first tried the cool regimen in the smallpox. Not, however, perceiving any effect from small doses, I soon increased to the quantity of a drachm, four times in the twenty-four hours, and with the certainty that it did not aggravate a single symptom ; but, as I thought, it abated, in a moderate degree, all the symptoms of the disease. In these doses, and with these periods of repetition, however, it seemed to be inferior to the nitrate of potassa, in the doses, and with the periods of repetition, with which I had been accustomed to use that article. Partly, therefore, from this circumstance, and partly

from its scarcity and cost, but more especially from the disappearance of all phlogistic diseases from the sphere of my practice, I soon entirely discontinued the medicinal use of this salt.

A few years afterwards, during the prevalence of an epidemic typhus where I resided, this salt was highly recommended to me, as an antemetic, by a professional gentleman in whose opinion I reposed great confidence. It was of course particularly recommended as an effectual remedy for the irritability of the stomach, with troublesome nausea and vomiting, which attended some of my cases of the epidemic typhus above mentioned. I accordingly made fair trial of it in these cases, both in doses of two or three grains and in doses of half a drachm, as well as in various intermediate doses; but, so far as I could judge, without any benefit from it in any case, and, in those in which I employed the largest quantities, with a decided aggravation of the very symptoms which it was expected to relieve.

This salt was again abandoned, as a remedial agent, till a few years afterwards, when it was again tried, in a few cases, for the purpose of relieving the nausea and vomiting attendant upon some instances of a low, malignant typhus. Here it could not be given in any quantity sufficient to produce perceptible effects, without aggravation of these very symptoms; and such had been previously ascertained to be the fact with all pure antiphlogistic agents in similar cases of this disease, particularly vegetable acids, neutro-saline effervescing mixtures, and the refrigerant salts generally.

From that time till within a few years, I neither used nor scarcely thought of this salt. Recently, however, knowing of its recommendation and employment in certain neuralgic cases (though, as far as I have obtained accurate information, without any certain benefit), my attention has again been called to its medicinal powers; and, in consequence of an application from a medical student, that I would suggest an article of the *materia medica*, as a subject of experiment, for the purpose of a dissertation inaugural to the degree of M.D., I named this agent. The experiments were all made in my office, and under my immediate superintendence; and, indeed, I was myself one of the subjects of them.

EXPERIMENT I.—January 7, 1832, E. J. D., in perfect health, and of ordinary susceptibility to the impression of medicine, but with his pulse at 96 in a minute (which was an accidental increase of about 24 beats), took, at three o'clock, P. M., a scruple of this salt. In half an hour the pulse was reduced in frequency to 80, and in an hour to 68, which was about four beats less than natural. No other effects were perceived.

EXP. II.—January 11, at seven o'clock, P. M., pulse at 72, its natural state, a drachm of this salt was taken. There was no subsequent effect, either upon the pulse or any other function, and no change whatever in any sensation.

EXP. III.—January 16, at seven o'clock, P. M., pulse at 76, half an ounce of the salt was taken; but it produced no effect subsequently, except a considerable diminution of appetite, and much flatulence, for several days.

EXP. IV.—January 21, at 4 o'clock, P. M., pulse at 80, an ounce of the salt was taken. In an hour, the pulse was reduced in frequency to 64. In another hour, the pulse was found varying from 56 to 65, a little exertion or motion instantly raising it to the latter number, and quiet for a sufficient time reducing it to the former. It was at the same time considerably smaller and weaker. In another hour—i. e., at seven o'clock, P. M.—the pulse, as respects strength and fulness, remained stationary, but its medium frequency was 64. At eight o'clock, the pulse remained as at seven. Shortly after this last dose of the salt was taken, a sensation of weight, fulness, and distention, in the epigastric region, began to be felt, which regularly and gradually increased, and was attended with a sensation of twisting, till about ten o'clock, P. M., when it had become so inconvenient, that about two fluid ounces of French brandy were taken, which, as was expected, greatly relieved it. Through the whole afternoon there had been also a very troublesome degree of flatulence, which increased with the other symptoms, and continued after they were relieved. There was likewise a moderate degree of cardialgia. Sleep, the night following, was much as usual; but, on the succeeding day (Sunday), there was a recurrence of the load and distension in the epigastrium, and of the sensation of twisting, which now amounted to rather severe pain, but which subsided, without medication, toward night. On the next day still following (Monday), these symptoms again recurred, and to such a degree as in fact to require medical relief. In the course of Tuesday, the same symptoms still continuing, three doses of opium, of a grain each, were taken at different times, with the desired effect, viz., the production of relief. On Wednesday, one grain of opium proved sufficient, and subsequently no more was taken, though much flatulence, and, at times, considerable uneasiness in the epigastrium, with deficiency of appetite, continued through the week. Indeed, whenever food was taken, even in very moderate quantity, it had a strong tendency to produce disturbance and distress; and, for several weeks following, the subject of these experiments had *proctica marisca*, which he had never experienced before. It should have been before stated, that, in the course of the afternoon and night after the last dose of the salt was taken, there was a considerable increase of the urinary discharge, which was at an end the next morning.

EXP. V.—January 7, 1832, at three o'clock, P. M., W. N. B., in perfect health, and of ordinary susceptibility to the impression of medicine, with his pulse at 72 in a minute, and slightly irregular (which is its natural state), took a scruple of this salt. This dose produced no perceptible change in the sensations, no change in the pulse, and no change in the state or condition of any of the functions.

EXP. VI.—January 11, at seven o'clock, P. M., pulse at 72, in other respects natural, a drachm of the salt was taken. No effect of any sort was subsequently perceived from this date.

EXP. VII.—January 16, at seven o'clock, P. M., pulse at 76, but perfectly natural in other respects, half an ounce of this salt was taken. In half an hour, no effect was produced; but, an hour or two subsequently, the pulse was evidently diminished considerably in force, and

also reduced about ten beats in frequency. In the course of the evening and night following, there was an obvious increase of urine, but no other perceptible effect. The sleep was perfectly natural, so far as was noticed. On the morning of the day following (January 17), a strong sense of weight and distension was perceived in the region of the stomach, with deficiency of appetite, and flatulence. These symptoms continued, in a variable and fluctuating degree, through the 18th and 19th, so that animal food could not well be taken. On the 20th, they were so much mitigated as to admit of a dinner of meat; but they had not entirely disappeared on the 21st, when the eighth experiment was made.

EXP. VIII.—January 21, at four o'clock, P. M., the pulse at 72, and in other respects natural, an ounce of the salt was taken. In an hour, the pulse was reduced in frequency to 56 in a minute, and was considerably smaller and weaker than natural. In another hour (six o'clock, P. M.), the pulse was still 56, when perfectly quiet, but, by a little exertion and motion, it would rise to 64. In other respects, it remained as at the last hour. At seven o'clock, the pulse was still at 56, and the same in other respects. At eight o'clock, the pulse was only 48 in a minute, and was even still smaller and weaker. In the course of the last hour there was a copious alvine evacuation, which resembled the operation of a full dose of a refrigerant purging salt. It is to be observed, that during the same day there had been the customary natural evacuation from the intestines. Between eight and nine o'clock, walked about an eighth of a mile, and immediately, on returning, felt a severe, heavy, and oppressive pain, and a sense of sinking in the stomach, so urgent as to require speedy mitigation. At this time, the pulse was only 36 in a minute, and there was moderate sweating. Now took two fluid ounces of undiluted French brandy, which gave immediate relief, that continued through the night, during which the sleep was quiet. On the morning of the 22d, a sense of weight, with some pain, was again felt in the region of the stomach, for which an ounce of undiluted French brandy was taken, with immediate benefit; and, apparently in consequence of this, the appetite for breakfast was much as usual, and the customary quantity and kind of food was accordingly taken. But soon after breakfast the same symptoms began to return, and they gradually increased till about eleven o'clock, A. M., when they had become so severe as again to require medical relief. At this time, about a grain of opium was taken, which was productive only of moderate and temporary respite; for after no very long time the same sense of weight and distension in the stomach, and the same pain, were again urgent. At twelve o'clock, M., half a tumbler of wine was taken, with as much relief as to allow of the ordinary dinner, though, as there was considerable thirst, an unusual quantity of water was taken with it. Before long, however, the old symptoms returned, and they soon increased to such a degree, that a dose of opium, about twice the size of the last, was taken, but without any appreciable abatement of the complaint. By two o'clock, P. M., the morbid symptoms had become so urgent, that it was deemed necessary to call on the professional gentleman who superintended the experiments. The exertion and

motion of walking about three fourths of a mile, to his house, very greatly aggravated the distress and pain. It had now extended to the umbilical region, had become lancinating, and extremely severe, resembling neuralgia, and there was tumefaction, hardness, soreness, and intolerance even of the lightest pressure, in both the epigastric and umbilical regions, with inability to sit erect—the whole accompanied with much flatulence, and frequent eructations of air. A free use of opium was immediately entered upon, which soon produced some benefit; but perfect relief was not obtained till about five o'clock, P. M., when full twenty grains of the remedy, accompanied with a little essential oil of cinnamon, had been taken. After this period, when perfect rest was maintained, there was complete freedom from pain; and the tumefaction, hardness, and intolerance of pressure, rapidly disappeared. Exertion and motion, however, would produce a slight return of the pain, but in a trifling degree. About nine o'clock, P. M., a moderate paroxysm of vomiting took place, by which, to all appearance, the food taken at noon, and probably considerable of the water which was swallowed with it, were rejected in a partially digested state. Not very long after this, went to bed, and had a perfectly quiet and comfortable night's rest, and on awaking, on the morning of the twenty-third, felt entirely well. On getting up and dressing, however, experienced some vertigo, but not sufficient to prevent walking three fourths of a mile to lodgings. On arrival there, again felt vertigo, and lay down on a bed. After a little rest, felt completely recovered, and at dinner had a good appetite, though indulged it moderately. At supper time, was so well as to crave and take animal food, after which, spent the evening in study and writing. No trace of indisposition of any sort was perceived the ensuing week. It is worthy of remark, that though there was no alvine evacuation on the twenty-third, yet that, early on the twenty-fourth, a natural one took place, and there was no subsequent derangement of this function.

EXP. IX.—January 7, 1832, at three o'clock, P. M., a professional gentleman, in perfect health, and of ordinary susceptibility to the impression of medicine, took a scruple of this salt. At the time the salt was taken, his pulse was at 72, and perfectly natural in every respect. This dose produced no change whatever in the pulse, though it was repeatedly examined at various intervals; and none took place in the sensations, or in the excretions.

EXP. X.—January 11, at seven o'clock, P. M., pulse at 72, a drachm of the salt was taken. At no time subsequently was there any change in the pulse, sensations, or excretions, that could possibly be attributed to the salt.

EXP. XI.—January 16, at seven o'clock, P. M., pulse at 76, half an ounce of the salt was taken. No effect was subsequently produced upon the pulse, except, perhaps, a moderate diminution in force and fulness, though this was so inconsiderable as to leave a doubt whether the salt had any instrumentality in the change. Other effects, however, were obvious. Within an hour from the swallowing of the salt, a sensation of weight and oppression in the stomach, almost amounting to pain, commenced, and this was accompanied with slight, but constant

cardialgia, and considerable flatulence. During the night, the urinary excretion was nearly doubled, and the symptoms just described were increased so much as nearly to prevent sleep. The day following, the same sense of weight or oppression at the stomach continued, but in a diminished degree; the cardialgia disappeared, but the flatulence was rather augmented. The appetite was much diminished, and there was torpor of the intestines, indicated by costiveness, which was immediately attended with a moderate degree of proetica marisca, with which the subject of the experiments had previously been but rarely affected. It was at least three days before the stomach and alvine canal recovered their wonted condition, and even then a slight degree of proetica marisca remained.

EXP. XII.—January 21, at four o'clock, P. M., pulse at 72, an ounce of this salt was taken. Under the influence of this dose, there was no subsequent change in the frequency of the pulse, but there was an obvious and unequivocal diminution, both in its fulness and force, commencing within an hour, and continuing through the evening and night. The same sensation of weight and oppression, that has been previously described, also took place within an hour, but in a considerably greater degree than before; and it was likewise accompanied with more cardialgia, and more flatulence. In the course of the evening, and about three hours from taking the salt, the sensation of weight and oppression, in the region of the stomach, increased to a steady and uniform gravative pain, which at last became so urgent, that a grain of opium was taken. Just about the time the opium was taken, there was nausea, and four or five efforts to vomit, though nothing but air was ejected. During the evening, there was frequent micturition, and a discharge of nearly double the quantity of urine, with considerable of that sort of irritation about the bladder and urethra, which the subject of the experiment distinctly recollects having formerly experienced, not only from nitrate of potassa, but also several times from the carbonate of potassa, when he has used it freely. The grain of opium, in the course of about an hour, much relieved the immediate urgency of the pain in the stomach, but did not by any means remove it. As in each previous experiment the salt had been taken upon an empty stomach, so in this all supper was omitted till between nine and ten o'clock, P. M., when half a dozen wine biscuit, with about two fluid ounces of brandy, diluted with water, were taken. The brandy was used because the gastric distress had again amounted to so much pain as to require some mitigation, which it gave, in about an equal degree with the grain of opium that had been previously taken. Between ten and eleven o'clock, P. M., the subject of this experiment went to bed, but was unable to sleep for several hours, on account of the flatulence and the gastric distress. About midnight, the same sort of pain in the stomach, as above described, had increased to such a degree as again to require relief, and there was likewise a strong sensation of weight and tension in the umbilical region, with considerable pain, much resembling the commencement of colica ileus, or common colic. At this juncture, two and a half grains of opium were taken, which, in the course of an hour, reduced the symptoms, in the epigastric and umbilical regions, to the sensation of

load and oppression, which had not disappeared since their commencement. From about two o'clock to six, A. M., the subject of this experiment slept well, but then awoke with the same sensations about the stomach and abdomen. At breakfast, had little or no appetite, but, nevertheless, ate moderately. For three or four days subsequently, it was necessary to take about three or four half-grain doses of opium daily, because, without, there would be a return of flatulence, sense of distension, oppressive weight, and even considerable pain, both in the epigastric and umbilical regions, and this to quite an inconvenient extent. Even to the end of the week, more or less of the same symptoms would constantly occur, unless subdued by a little opium; and during the whole of this time, there was deficiency of appetite, except when under the influence of a moderate quantity of opium. It is worthy of remark, that although no costiveness followed this last dose of the salt, and none was produced by the little opium which was taken, yet a troublesome degree of proetica marisca took place immediately, and had not subsided by the first of February. The faces were lighter colored than natural during this period. It is also worthy of remark, in this case, that neither the opium nor the brandy produced any of the ordinary operative effects that might have been expected, had they been taken by a person perfectly well, and not under the influence of any other medicinal agent. The subject of this experiment well knows, from repeated trials formerly made, that he could not have taken three and a half grains of opium, in the manner which he did at first, without vertigo, headache, nausea, etc. the next day, unless where there was disease, for the relief of which, the force of the opium should be spent; or where some counteracting agent to the effects of opium had possession of the system. It may be necessary to mention here, that the weight employed for the doses of this salt was Troy weight, and not Avoirdupoise, which latter, I believe, is generally used by druggists, in many parts of our country, for all quantities above two drachms.

These details are taken verbatim from the dissertation of which they are a part.

It is believed that these twelve experiments, made upon three different individuals, with a successive increase of the doses, the same doses being given to each individual respectively, will be considered as throwing all the light upon the operation of this article, in single full doses, that can be obtained with safety, upon persons in health; and that the effects of single full doses fairly show its analogy to other better known articles of medicine, by which we can readily arrive at highly probable conclusions, in regard to its effects when given in small doses, at regular and short intervals, and its use persevered in for a considerable time. It will be obvious, that it could not well be taken in this latter way by persons in health. I believe I may add, too, that a correct judgment may be formed as to the *sort* of effects which this article will produce in disease, from its operation in health, though the *degree* of effect in different diseases cannot be thus estimated. In diseases attended with a morbid increase of susceptibility to the impression of medicines of this sort, far less may prove operative; while in diseases of an opposite character, in this respect, far more may be required: but it certainly

appears to belong to a class of agents, whose effects, both in health and in disease, agree at least in kind.

Some further remarks on these experiments, will form a paper in the next number of this Journal.

REMARKS ON CONTAGION.

Communicated for the Boston Medical and Surgical Journal.

WITH the ultra non-contagionists, there is a course of abstract reasoning on which they place much reliance, though to my view it is fallacious in the extreme, and utterly untenable, both in the medical and in the physical world. It is roundly asserted that a particular, *specific effect*, can only be produced by the same *identical cause*. This I utterly deny, the alleged authority of the great Bacon to the contrary notwithstanding. Without noticing all the quibbles concerning the various acceptations of the word *cause*, I will remark, that it is one of the most common laws of nature that a *specific effect*, in different instances, is liable to be produced by an indefinite variety of *occasional causes*. What are more numerous than the causes of death? Combustion may be caused by the communication of flame, of a spark, by friction, by sudden condensation of air, by sulphuric acid, by some kinds of fermentation, &c. Inflammation may be caused by fire, by frost, by mineral acids, and by various other means. The causes of fever are indefinitely numerous. The same will apply to other diseases of almost every description. I have no disposition to deny, that yellow fever, typhus, scarlatina, &c. are often, perhaps most frequently, generated in the localities in which they commit their greatest ravages; but a man must be possessed of a very peculiar mind, who, judging from the evidence before the public, can deny the importation of cholera into Quebec and Montreal.

The dogmas of the ultra contagionists are equally absurd, and are virtually founded upon the same course of false reasoning—the identity of cause. They seem to suppose that disease is an existence of the same kind as an animal or a plant; whereas, it is only a state or condition of existence. In the language of the schools, disease is a *mode*, not a *substance*. All the arguments, therefore, which are derived from the same chain of reasoning, as that opposed to the doctrine of equivocal generation in plants and animals, are inapplicable to the origin of disease.

It is easy to find the extremes, but it is difficult, if not impossible, to fix the dividing line between contagious and miasmatic diseases. Smallpox is at one end, and intermittent at the other. These two complaints appear to be governed by totally different laws, as to their origin, and the usual modes of their continuation and propagation. Perhaps the principal and most obvious difference is, that in smallpox, contagion is generally both a predisposing and exciting cause at the same time; or, more correctly, there is needed no greater predisposition than ordinary susceptibility, to enable contagion to produce the disease. In intermittent, as a general rule, miasm does nothing more than act as a predisposing cause, putting the system into such a state that almost any error in the non-naturals will excite the disease. There are exceptions, undoubt-

edly, since the seeds of contagion occasionally lie dormant for a long time, and perhaps at times become extinct without any apparent effect ; and miasm may be so concentrated, that remaining a night, or even a few hours, within its sphere, is almost certain to produce intermittent within a definite time.

The temperament of individuals has a vast influence upon their relative susceptibilities, when they are exposed to the causes of disease. But there are times and seasons, in which there are great variations of susceptibility, not only in individuals, but in whole communities. This is called *epidemic constitution*. When this constitution is very strong, epidemics are inclined to spread rapidly and widely, and almost every complaint becomes tinged with the prevailing malady. The general opinion, since the days of Hippocrates, is, that this constitution, or general predisposition, is owing to the state of the atmosphere. If by condition of the *atmosphere* is only meant a change or state of one or more of the elements with which we are surrounded, it is undoubtedly correct ; but if the term is restricted to *air*, it is evidently without foundation. Nothing which can be detected by the barometer, thermometer, hyrometer, eudiometer, or by any other instrument or apparatus, is sufficient to account for epidemic constitution, or to show why one side of a river may be healthy and another sickly. Nor do the variations in the seasons afford a more satisfactory solution. Pestilential diseases, of wide difference, such as plague and cholera, for aught we know, may prevail in every month of the year, and in every habitable spot on the globe.

It will be observed, that these remarks are confined to *epidemics* ; the local causes of *endemics* are not now under consideration. Nor are the causes of increasing the virulence of epidemics taken into the account.

Of all the hypotheses which have been started, that which supposes epidemic constitution to be occasioned by an invisible and imponderable fluid, analogous to caloric or electricity, is the most ingenious, and supported by the greatest weight of probability. A very respectable practitioner compares this state of predisposition to a cloud, hanging over one region for a time, and then visiting another ; occasionally letting through the rays of the sun in some places, which remain salubrious, with pestilence around them.*

S.

PUBLIC MEDICAL INFORMATION.

Communicated for the Boston Medical and Surgical Journal.

ABOUT fifty years ago, Dr. Jared Potter, though residing in a small village, was decidedly at the head of his profession in Connecticut. An epidemic occurred among children, in which he soon discovered that the warm bath was of eminent service. This information he diffused among his employers, and he was rarely called to a patient without finding a sufficient quantity of hot water, and all the apparatus for bathing, at his hand.

* The author of the above Communication will excuse us for changing his signature, as that he appended to his paper might lead to some confusion in our arrangements.—Ed.

When the spotted fever (so called) prevailed in the county of Litchfield, Connecticut, upwards of twenty years ago, Dr. North (now of New London), profiting by the suggestions of a Mrs. Hulbert, a woman whose name ought always to be mentioned with respect and gratitude, made known to the public that free perspiration, produced by the application of external heat, and the internal use of hot cordial drinks, when employed early, in general would essentially mitigate the symptoms of that formidable disease. While the physicians of her vicinity were losing, *secundum artem*, a third of their patients, under bleeding, vomiting, and purging, Mrs. Hulbert, of herself, cured her family by diaphoretics and cordials. This discovery was invaluable, and probably saved the lives of hundreds. After the people had been taught what to do before the arrival of the physician, and the practitioners had become familiar with the proper treatment, the disease soon lost most of its terrors.

It is the privilege of Americans to think and act for themselves, and our nurses, attendants on the sick, and heads of families, all know something of the management of common diseases, and are in the habit of using more or less medicine; and they frequently cure many light complaints, and know how to meet particular symptoms, without *direct* professional advice. This habit of thinking and acting, with regard to sickness as well as other subjects, in case of the sudden appearance of cholera will unquestionably be of great service. When a person is violently seized with gastric sinking, pain, agues, shrunken extremities, spasms, numbness, faintness, sunken countenance, leaden color of the skin, exhausting vomiting and purging, and other symptoms that threaten the immediate extinction of life, common sense and common observation will generally suggest to our citizens what is necessary to be done.

The patient is to be warmed by blankets, heated bricks, hot flatirons, bottles of hot water, blocks of wood or bits of board heated in boiling water, bags of heated sand,* &c., till free sweating is produced. In some parts of the country, bags of boiled oats, on account of their diffusing a pleasant steam, or bunches of hemlock or pine twigs, heated in boiling water, are preferred. The benumbed and pained parts of the body, and the extremities, are covered with strong mustard paste, or with *bats* of cotton freely sprinkled with pulverised capsicum. Laudanum, peppermint, brandy, and other cordials, are given internally, as freely as the stomach will bear.

In those parts of the country where cold, malignant diseases have frequently prevailed, these processes are now well understood by the people in general, and the physician, on his arrival, is gratified to find that the severest symptoms are already mitigated. Indeed, in many cases he has little more to do than to follow the same measures in a systematic manner, proportioned to the exigencies of the case.

It is owing to this kind of knowledge among the people of New London, that their late disease, so nearly resembling the cholera, has been attended with very little mortality. If the public prints, and the physicians in general, will diffuse the same kind of information *in our cities, and in those parts of the country where cold, sinking diseases, have*

* Or ashes, which is preferable, as being generally in readiness.—Ed.

not already taught the proper treatment, the people will not be taken by surprise, should cholera appear.

The board of physicians in Boston have set a very humane and laudable example, in giving some of the most valuable information to the public. It is to be wished, that this report may be published in every paper, and be read by every family, in the country. We must look at home for rules of managing cholera, if we expect any success. The faculties of London and Paris, since they lose from a third to a half of their patients, it is obvious, are of no authority, and their reports are of no other service than as beacons, by which we may see and avoid their errors.

The non-professional part of our community, when our country is threatened with sickness, will read and judge for themselves. They will also act for themselves. We have no class of people so ignorant and debased as to be incapable of learning the outline of the treatment of any formidable disease, at least so far as to make them familiar with the process of nursing, and of mitigating casual symptoms. The examples given of Dr. Potter and Dr. North, with scores of others that might be noticed, are ample proof of this point. And should New England be visited with cholera, there can be very little doubt that the plain but able report of the medical board of Boston will be found to be the means of preserving hundreds, perhaps thousands, of our citizens.

It is sincerely to be hoped that no sectional feelings, and no rivalry of medical institutions in the other states, will prevent the diffusion and adoption of a plan of treatment, because it has been discovered and successfully practised in another part of the country. *Negative* experience, and abstract reasoning from favorite hypotheses, are of no weight in opposition to the *positive* testimony of such men as Page, Vaughan, North, and twenty others whose names might be mentioned, who have been in the habit of successfully combating every symptom which is commonly met with in cholera. The extent to which opium, alcohol, capsicum, and various other remedies, may be safely carried, in many painful, cold, torpid affections, is no where to be learned in foreign books. Here European knowledge and experience are very defective, as is evident from all the reports concerning the practice in cholera. After reading much upon the subject, the present writer can confidently assert, that he has not, in a single instance, found a report of practice in cholera sufficiently energetic for a moderate case of sinking typhus. Were we to employ as desultory and inefficient medication, in many of our cold and sinking epidemics, as that which is considered as the boldest practice in Europe, we should undoubtedly lose a third or a half of our patients.

T.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JULY 4, 1832.

MASSACHUSETTS REPORT ON CHOLERA.

WE recur to this production for the purpose of a short notice of some of the grounds taken by the Committee.

In regard to contagion, we remarked last week that the Committee did not deem the past history of the disease sufficiently full to warrant a decided opinion on the subject. To many readers this circumstance will probably cause disappointment. For ourselves, we think they have judged wisely in this matter. Had they thought the evidence sufficiently strong to justify such an opinion, yet, on a question which has called forth so much discussion, and in regard to which the facts have been constantly before the eyes of the public, it could not be expected that the dictum of any body of men, however respectable, would be regarded as conclusive, even if they could cordially unite in the expression of the same opinion. But supposing this unanimity not to exist, the minority as well as the majority would probably feel it to be due to themselves to avow their opinion, and both parties would thus in fact appeal to the judgment of the public whom they profess to make it their purpose to enlighten. The best mode, undoubtedly, is to state with candor and impartiality the facts and arguments which bear on the opposite sides of the question, and then to leave readers to judge for themselves.

There is but one idea embraced in the conclusion of this part of the Report, which appears to us to lie open to fair criticism. It is, that, whatever be the mode of propagation of cholera, that mode can only with propriety be regarded as single. Such, if we understand it, is the purport of the language. Now it appears to us that if there be in fact two distinct modes of propagation, which may be conceived as possible, and if of the phenomena which are known and admitted, a part admit of explanation by adopting one of these modes, and another part being at variance with this, gives countenance to the other, it is at least not absurd to believe that the disease has actually been propagated in both. Now such does seem to be the state of the case in regard to contagion and infection, viewed as means of extending the present epidemic. But the tendency of the language held by the Report is, if we understand it, to confound these two sources in one, by making the contagion independent of contact, and by enlarging indefinitely the sphere of its action; and thus to reduce the non-contagionists to the choice between locally generated terrestrial miasm as the cause of the disease, and a tertium quid, the nature of which is wholly unknown, except as involving a negation of the two others. In this sense we should not only be willing to consider contagion a more probable cause than either of the other two, but as adequate to explain all the facts in the case. But we apprehend that the rigid contagionist will not be satisfied to have his doctrine interpreted in so liberal a sense. In other words, those who view cholera as strictly contagious in its character, intend to be understood, as subjecting it to the same laws which govern smallpox; and it is the inadequacy of

this view to explain all the phenomena of its propagation, while it corresponds very well with a large part of these phenomena, which has led many others, as well as ourselves, to endeavor to reconcile the opposite theories, by avoiding the exclusive character of both. Whether this view of the subject is preferable to that adopted in the Report, or whether they differ by more than a verbal distinction, we would rather that our readers should determine for us.

The author of an article in the *North American Review* for July, written expressly and avowedly to support the doctrine of the non-contagiousness of the disease, appears not only to have fallen into, but absolutely to have built upon, the error we have pointed out. "We shall not notice," says he, "the opinion of those who attribute it to a combination of these two causes, as it is unphilosophical to assign two causes for an effect, when one is sufficient to account for it." A bullet through the heart, to use the apt illustration of a respected correspondent, is certainly sufficient to account for the death of a man; but is it therefore unphilosophical to hold that death may be caused by drowning, lightning, or the cholera? The rays of the sun are a sufficient cause of light and heat; is it therefore unphilosophical ever to attribute them to electricity, or any chemical combination? A word from the author to his horse will probably make him go; but does it follow that the stroke of a whip on his back cannot produce the same effect? It must, we apprehend, be clear to every one, that the rule in question is not one of universal application, and therefore not a sufficient foundation for an argument in the present case. Apart from this, we may remark, that the article in the *Review*, which is from the pen of a medical gentleman whose opinions on the subject are decided, presents a concise view of the facts and arguments which oppose the idea of the contagiousness of the cholera, and is recommended to the perusal of the faculty generally.

Although the discussion of the mode of propagation of the disease is made by its importance to occupy more than one half of the Report, the question to which it constitutes the answer is but one of eleven which were submitted to the consideration of the Committee. The remaining ten we can conveniently name, and two or three of them consider in order, as they form a regular numerical series, numbered from one to ten,—the one already alluded to being a duplicate of No. 5.

The 1st inquiry is the following: Under what circumstances, and in what place, did the epidemic originate?—On this subject we have a valuable extract from Mr. Jameson's Report to the Government of Bengal, drawn up in 1820, the details of which go to show, that, at the outset, its appearance in different parts of India was simultaneous or nearly so, and such as to furnish no reason for supposing it to be propagated from one position to another, until the year 1818. At this period, without quitting the provinces in which it was already established, it began to spread more widely, and its extension to be governed by fixed laws. The lines in which it passed were sometimes determined by the course of the principal rivers, at others by the great roads, and occasionally it followed the routes of large armies. It seldom remained long in one place, its duration varying from two to six weeks. It avoided in a great measure the hilly country, and seemed often to be arrested by a range of mountains. It was more fatal to Indians than to Europeans, a circumstance apparently connected with the privations and poverty of the former.

2. What are the symptoms of the Spasmodic Cholera, their course and order?

3. What are the post mortem appearances in patients dying of Cholera ?
4. Is Spasmodic Cholera a new disease ?

The Committee conclude, and we think rightly, that in comparing the Asiatic disease, as described with cholera as known to us, the two appear essentially the same ; but that the Indian disease is distinguished as an epidemic by its extensive prevalence, by the violence and intensity of its symptoms, by the rapidity of its course, and by its fatality. There is sufficient evidence that the European and Asiatic disease are identical.

5. What is the proximate cause of Spasmodic Cholera ?

The Committee regard the disease as acting like a poison on the constitution, producing depression of the vital powers, such as ordinarily to prevent reaction. The spasms which mark the disease, may be regarded as an indication of the prostration of the muscular forces, and are similar in their character to those which ensue on the powerful operation of antimonial medicine. At the same time that it produces this depression, the poison violently and suddenly stimulates the alimentary canal, and thus produces the evacuations. Other remarkable changes which occur in the system, are, the failure of the urinary and hepatic secretions ; and the dyscrasis of the blood, which loses in a degree its fluidity, and becomes darker than in health in all the vessels.

6. Diagnosis of Cholera.

7. Prognosis in Cholera.

8. Treatment.—The most important indication in the treatment of cholera, is to remove the obstacles which exist to the free action of the heart, and to excite this organ to vigorous and steady efforts. To fulfil this indication, it is not sufficient, in the opinion of the Committee, to employ stimulants. At the same time that the power of the organ is augmented, it is also desirable to diminish the amount of the mass on which it is to exert its action. By this consideration is suggested the propriety of blood-letting, and the utility of this measure they believe to be confirmed by experience. The testimony of the Indian Reports, viz. that of Bengal, by Mr. Jameson ; that of Madras, by Mr. Scott ; and that of Bombay, all go to show the efficacy of this remedy. Mr. Annesley and Mr. Bell also regard bloodletting as the most important part of the treatment. Emetics have likewise been employed to arouse the powers of the circulation, and in many instances with good effect. Other important indications are to quiet action and relieve pain in the stomach and bowels, and to promote the biliary secretion. The means of effecting these, and the general plan of treatment to be pursued, are detailed in the Report at considerable length, and will form to the practical physician one of the most interesting portions.

9. What measures should be used to prevent the introduction of Cholera into this country ?—Under this head, the Committee report a plan of quarantine regulations, based on the supposition that the disease always makes its appearance within seven days after it is communicated, and that no vessel ought to be detained, on board of which no disease has existed for ten days previous to her arrival. When disease actually exists, or has been present within this period, the vessel should be subjected to a rigid quarantine, and no communication whatever should be allowed with the shore till the period of danger has passed. No restrictions should be imposed on the landing of merchandize from a diseased port, with the single exception of the article of rags. Clothing which has been worn by the sick, ought to be subjected to the common modes of purification.—However judicious these precautions appear in themselves, and

however cautious the reasoning on which they are founded, it is evident that they have seldom been fully adopted with the rigor recommended by the Committee. At all events, that the disease has been propagated with a rapidity almost without example, and that in its progress it has sometimes at least appeared to be governed by the laws which usually regulate contagious epidemics, will hardly be disputed by a candid observer; but whether it has been in strict conformity with these same laws, can be better proved when, after the subsidence of the existing excitement, all the facts in the case shall be accurately known, and fairly and impartially compared.

10. What measures ought to be taken in case the Spasmodic Cholera shall appear among us?—With a mere statement of this query, in answer to which the Committee have anticipated most of the important measures of police which have recently been recommended and adopted, we shall close our notice of the Report. However deplorable the events which have rendered necessary the performance of this task, we shall all join in rejoicing that it has been so ably performed; and whether the present scourge is destined to visit us or not, the information contained in the present work, and the philosophical views which it suggests, will not fail to have a permanent value in the eyes of the profession, to whom it is again recommended in the same terms in which we briefly noticed it the last week.

THE CHOLERA IN CANADA.

THE cholera, we are happy to announce, is almost entirely subsided at Montreal and Quebec, though cases are occurring in the vicinity of those places. At the suggestion of Mr. Clay, the Senate of the United States has voted to request the President to appoint a day of general humiliation and prayer to Almighty God, that He may in His mercy avert from our country the Asiatic Scourge which is now traversing and devastating other countries; and that should it be among the dispensations of His Providence to inflict this scourge upon our land, that it may please Him, in His mercy, so to ameliorate the infliction, as to render its effects less disastrous among us, than they have proved among the nations which it has heretofore visited.

The Governor of Maryland has designated THIS DAY for a similar purpose, in that State. Our sentiments on such a measure were expressed on page 98 of our last volume.

We are compelled, by want of room, to defer several valuable Communications.

Whole number of deaths in Boston for the week ending June 29, 26. Males, 15—Females, 11—Still-born, 1.

Croup, 2—consumption, 6—scarlet fever, 3—convulsions, 1—dropsy, 2—rheumatic, 1—measles, 1—infantile, 2—drowned, 1—throat distemper, 1—intemperance, 1—unknown, 1—suicide, 1—typhus fever, 1—affection of the brain, 1.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

WEDNESDAY, JULY 11, 1832.

[NO. 22.]

CHLORITE OF POTASSA.

On the Chlorite of Potassa. By WILLIAM TULLY, M.D. Prof. Mat. Med. and Therap. in Yale College.

[Concluded from p. 333.]

IN my view, then, the operation of this salt, as manifested in the preceding experiments, plainly appears to be (in kind, but not in degree) precisely like the effects of nitrate of potassa. In several instances, in chronic diseases, that were nearly if not quite local (as, for example, in a case of stricture of the urethra, mistaken by the physician in attendance for lithia, and, what is quite as singular, treated by a free use of nitrate of potassa), I witnessed the effect of that salt continued for a long time in efficient quantities, but not in so large doses as to produce any immediate inconvenience. In several instances, also, I have known two or three drachms of it, and in one instance probably about four drachms, taken by mistake, and not subsequently discharged, either by vomiting or purging; so that I well know its effects. From these observations, I should judge that the salt which is the subject of this essay possesses between a quarter and a third of the medicinal activity of the nitrate of potassa.

Again: the operation of this salt appears also to be precisely similar (not only in kind, but even in degree) to the effects of the bi-carbonates of potassa and soda. My attention was first turned to the effects of these last salts by observing their operation upon certain individuals, in the form of the popular beverage called soda water, as it was prepared several years ago; and afterwards I made some experiments with one of them, in single full doses, or rather very large doses (upon myself), for the sake of obtaining further assurance that I labored under no mistake. The results of my observations and experiments, in regard to the bi-carbonates of potassa and soda, and the nitrate of potassa, have been as follows:—

When used in a large quantity at once, or within a short period, though short of the amount that will occasion what is called actual poisoning, each of these salts produces a soft and feeble pulse—great flatulence, and often cardialgia—uneasiness and strong sense of load and weight, or distension, in the epigastrium, gradually increasing to a steady pain, like the beginning of colica ileus, with intolerance of pressure,

progressively extending to the umbilical region, and even to the whole abdomen, subsequently becoming extremely acute and lancinating, and then considerably resembling the pain of colica rhachialgia—the tumefaction and tenderness augmented in proportion to the severity and continuance of the pain, and sometimes attended at last with severe vomiting, and more or less spasms. This, it will be observed, is thus far identically the operation of the salt under consideration.

When used in much smaller, but still efficient quantities, for a considerable length of time, the nitrate of potassa (and also the bicarbonates of potassa and soda) produces general debility, frequent soft and feeble pulse, pale countenance, a brown crust about the teeth, a peculiar diminution of the tone of the stomach and intestines, great flatulence and often cardialgia, utter loss of appetite, often great diminution of digestive power, sometimes intolerance of most sorts of food, occasionally frequent vomiting, and sometimes diarrhœa. When the perfect identity of the effects of a single large dose of the salt of which we are treating, with the effects of a similar dose of these salts, is considered, no reasonable doubt can remain that it is also capable of producing this last described group of effects.

But, as I have already said, in the earlier part of my medical practice, I employed this salt considerably in various diseases; and, as I have likewise stated, I have continued to use it occasionally (though rarely) up to the present time. Now, in true phlogistic diseases, I repeat, I think I have certainly witnessed an obvious and palpable antiphlogistic or reducing effect, and I am confident I have never witnessed any other medicinal operation from it; for I do not consider the slight increase of the urinary excretion, which it produces, as being, in fact, a medicinal effect, since it is too inconsiderable to be of any use in the treatment of disease. As I have stated, I have formerly tried this salt, in moderate quantities, in various diseases of the nervous function; and occasionally, when I told my patient what I hoped it would accomplish, he sometimes flattered himself that it did operate slightly in this way; but this has never been at all obvious to me, and even the patient has generally had some doubts of it. In other instances, where I did not explain the purpose for which I gave it, no effect has been perceived.

The tendency of this salt (when used to a certain degree of excess) to produce symptoms of colic and proctica marisca, though without cessation of the peristaltic action of the intestines, very strongly assimilates with all the unequivocally refrigerant salts, and even with the cathartic ones. In the eighth experiment, this article even seemed to prove cathartic, like the refrigerant salts; while, in the other experiments, it did not even produce a laxative effect; and yet, notwithstanding the purgation in the eighth experiment, which must have carried it out of the intestines, it operated, in other respects, much the most powerfully. Many practitioners, I doubt not, from the symptoms, would have considered further purging, rather than opium, as the appropriate remedy for the ill effects produced in this case. For myself, however, I entertain no doubt, from past observations in regard to nitrate of potassa, that purging merely would rather have aggravated than mitigated the evil.

It is my opinion, therefore, that, as respects medicinal powers, this article is a pure reducing, antiphlogistic, or refrigerant remedy ; i. e. it directly reduces vital energy and strength of action in the arterial system, and of course relieves phlogistic diathesis. My colleague, Professor Ives, has formerly told me, that, according to his observations, this salt certainly diminishes the heat of the body. This corresponds perfectly with my observations in regard to its effects in the treatment of phlogistic diseases, and even in some cases where the heat has been purely irritative, not being connected either with entony (phlogistic diathesis) on the one hand, or any positive atony on the other. But I have not found it capable of abating all sorts of heat ; for, in my early practice, I employed it somewhat in hot typhus, but rather with an aggravation than a mitigation either of the heat or any other morbid symptom. In this respect, it is perfectly analogous to nitrate of potassa.

I trust that it is unnecessary, at the present day, to show that the living human body cannot be oxygenised, like a piece of inanimate iron or copper, in the laboratory of a chemist ; and, as it is now conceded that this salt is of no value in syphilis, it must be unnecessary to discuss its value in this point of view. If we search for proof of its efficacy in scurvy, I believe we shall fairly lose our labor, as I know of nothing upon the records of medicine that contributes at all to show this ; and the same remarks appear to be equally applicable in regard to its powers in diseases of the skin, and also in spasmodic affections. That it has some diuretic powers, is certain ; but these, as I have said, appear to be too trifling to be worthy of any consideration. It is, in my view, clearly febrifuge, but by no means in the same sense in which cinchona is febrifuge. Cinchona is febrifuge in intermittent and remittent, but not in cauma and the caumatoid phlogotica. Tartrate of antimony is febrifuge in cauma, but not in intermittent, or low malignant typhus. Now I think there is abundant reason to conclude that the febrifuge powers of this salt are in analogy with tartrate of antimony, and not with cinchona. It is to be regretted that physicians still continue to employ such vague terms as febrifuge, which scarcely convey any more precise knowledge, in regard to the particular virtues of a remedial agent, than the term medicinal. Under different circumstances, bleeding, antimony, nitrate of potassa, opium, cinchona, and alcohol, are all febrifuge. Now what other term is there, in the materia medica, that will comprehend a more heterogeneous group, so far as relates to their operation, and the cases to which they are adapted ? I believe these observations are equally true of antemetics. What could possibly have been the origin of the opinion that this salt is a stimulant, I cannot imagine. When it was first introduced into the materia medica (as I have already stated), it was a prevailing theory, or rather hypothesis, that the refrigerants, or, in other words, antiphlogistics, were merely chemical, and not vital, in their operation, and that they produced their effects by supplying the system, through the medium of the digestive organs, with oxygen in a concrete state, thereby superseding the supposed necessity of its being received by the lungs, as was then believed, in a gaseous state, and, on its subsequent solidification, extricating the great quantity of combined heat, which was imagined to be instrumental in transforming it from a

solid to a gaseous form. On this hypothesis, those articles which contained the greatest quantity of oxygen, in the loosest state of combination, ought to have been the most powerful refrigerant or antiphlogistic agents. Again : the salts with alkaline bases were supposed to be additionally refrigerant or antiphlogistic, by the "power they have of producing in the stomach a sensation of cold."* This article, then, being a salt of an alkali, and containing more oxygen, in a loose state of combination, than any other agent of the *materia medica*, ought to have been the most powerful refrigerant or antiphlogistic, instead of a stimulant. But if it is in fact refrigerant or antiphlogistic—i. e. if it possesses the power of directly reducing vital energy and strength of action in the arterial system—it cannot at the same time have a stimulant power ; i. e. the power of producing a quickly-diffused and transient increase of vital energy and strength of action. It ought not to be forgot, in this connection, that this salt consists of six equivalents oxygen, one equivalent potassium, and one equivalent chlorine—and that nitrate of potassa consists also of six equivalents oxygen, one equivalent potassium, and one equivalent nitrogen ; so that the two salts differ from each other only by one equivalent out of eight.

But MURRAY says, that, as a remedy, this salt may be classed with the nitric acid. Now I do not think that one single particular can be mentioned, in which it truly agrees with nitric acid. As far as has been ascertained, nitric acid is a moderate tonic and deobstruent, without any other powers, at least as an internal remedy ; while this salt (according to my observations) would seem to be a pure refrigerant or antiphlogistic. I am aware that the mineral acids are commonly said to be refrigerants ; but all those who call them refrigerant, call them tonic likewise. Now, if they are really tonic (of which I believe there is no doubt), how can they be refrigerant also ? how can an individual article both increase vital energy and strength of action, and diminish vital energy and strength of action, at one and the same time ? Is it not the fact, that, by the universal consent of the medical profession—a consent, doubtless, founded on experience—the mineral acids are considered inadmissible in truly phlogistic diathesis, and are thought useful only in atonic cases, which would not be the fact did they possess antiphlogistic, or, in other words, refrigerant powers ?

Upon what ground, then, does MURRAY call this article tonic ? The following would seem to have been his reasoning, viz. :—nitric acid is tonic ; nitric acid imparts oxygen to the system ; this salt also imparts oxygen to the system, therefore this salt is tonic : and so nitric acid and this salt are placed in immediate connection, in his classification of the *materia medica* ; and nitrate of silver, all the mercurials, iron, zinc, copper, arsenic, bismuth, baryta, and lime, immediately precede nitric acid and this salt, in the same class, and in the order in which I have enumerated them. But whoever confides in such reasonings, as appear to be applied to this article by writers, will inevitably be misled. The powers of medicines, in all cases, must be ascertained by experiment or experience, and by actual observation of their use, and in operative

quantities, too ; and they cannot be ascertained in any other way. In the department of materia medica, "*no argument like matter of fact is.*"

As I have placed the name *Chlorite of Potassa* at the head of this essay, it is necessary to make a few remarks, not only in explanation, but in justification, of the employment of a name not used in any of the common systems of chemistry. Chemical authors of the present period specify four compounds of chlorine and oxygen, the existence of all of which, I believe, is well established. The first is alleged to be composed of one equivalent of each of these elements, and it is denominated protoxyd of chlorine. In regard to the second, there has been a diversity of opinion. It is commonly said to consist of one equivalent of chlorine and four of oxygen, though the Count Von Stadion, one of its discoverers, supposed that it contained but three equivalents of oxygen. Under the former view, it has been called tetartoxyd of chlorine, and, under the latter, tritoxyd of chlorine. Dr. Thomson, in the first volume of the edition of his chemistry, which was published in 1831, considers it as a tetartoxyd ; but, in the second volume of the same work, he says—"There can be but little doubt that Von Stadion's analysis is accurate, so that it is a compound of one atom chlorine, and three atoms oxyd." But he here considers it as an acid rather than an oxyd ; and he says—"If it is placed in contact with an alkaline base, in its nascent state, a combination takes place, and a salt is formed, having a peculiar acrid taste, similar to that of the acid." He adds, that its "salts have the property of destroying vegetable colors." In the latter part of the same volume, where Dr. Thomson treats expressly of all the salts, he makes no mention of any salts of this supposed acid ; but, from reference to his remarks upon what is called *Bleaching Powder*, and upon what is called the *Disinfecting Liquid of Labarraque*, under the article Calcium, in his first volume, we find that he imagines that a part of these compounds constitute his supposed salts of this supposed acid, as he there tells us that Berzelius considers the *Bleaching Powder* as a mixture of three atoms chlorid of calcium, with one atom of a salt of lime containing this supposed acid. Now, that Berzelius's view of the composition of the *Bleaching Powder* is not correct (though the elements of the compound will admit of it), is proved by the facts, that, when a strong acid is poured upon it, chlorine is extricated, which is not the operation of such an acid, either upon chlorid of calcium, or any salt of the oxyd of calcium, with an oxygen acid ; and that it is not sufficiently deliquating, when exposed to atmospheric air, to admit of its being three fourths chlorid of calcium, which is one of the most deliquating compounds known. The acid character of the tritoxyd of chlorine does not, therefore, appear to me to be rendered at all probable. Of the two other compounds of chlorine and oxygen, the next consists of one equivalent of chlorine and five of oxygen, and the last of one equivalent of chlorine and seven of oxygen ; and both are decided and unequivocal acids. But in the systems of chemistry there is a singular anomaly in regard to the nomenclature of these two acids ; for, contrary to all rule, that which contains the least oxygen is called chloric acid (instead of chlorous), and that which contains the most is called per-chloric acid. This application of names undoubtedly originated from the circumstance, that

the acid containing the least oxygen was discovered first, and then, being the sole known acid of chlorine with oxygen, was very properly called chloric acid; but, when another acid of chlorine containing more oxygen was discovered, the name of the first known should have been changed to chlorous acid, and the new one should have been called chloric acid. Such a change has actually been made in regard to the acids of selenium: for that which contains the least oxygen was first discovered, and was then called selenic acid; but, when that containing a greater quantity of oxygen became known, the name selenous was applied to the former, and the name selenic transferred to the latter. The same is the fact with regard to the cyanic and cyanous acids, the former denomination having been applied to the latter acid when that only was known; but when another was discovered, containing more oxygen, a change of names, as in the case of the acids of selenium, was immediately made.

But there are other objections to the prevailing denominations of the acids of chlorine, beside mere anomaly of nomenclature. At the present time, the salts of the peroxyds are distinguished from the salts of the protoxyds by the prefix *per* to the name of the salt. Thus, a salt of the chloric acid, with the protoxyd of iron or the protoxyd of mercury, is a protochlorate; and a salt of the chloric acid, with the peroxyd of iron or the peroxyd of mercury, is a perchlorate. But upon the present received nomenclature of the acids of chlorine, we shall have three sorts of perchlorates, of different composition, the distinction of which, these names do not make. By the retention of the now existing nomenclature of the books, in regard to the acid compounds of chlorine and oxygen, we shall be obliged to have perchlorates whose bases are protoxyds, and also two entirely distinct sets of perchlorates whose bases are peroxyds; i. e. perchlorates formed of different acids. Besides, judging from analogy, we may yet expect to discover an acid of chlorine and oxygen, intermediate between the two now known, and consisting of one equivalent chlorine and six equivalents oxygen; and likewise another, intermediate between the tritoxyd of chlorine and what is now called chloric acid, and consisting of one equivalent chlorine and four equivalents oxygen. As the now known acids of chlorine are at present called, it would be difficult to find names for the two new ones of the above description, at least in analogy with the nomenclature of other acids; but only call the now known acids of chlorine by the names of chlorous and chloric acids, and one of the *anticipated* new ones would be a hypochloric, and the other a hypochlorous, acid, in strict analogy with other existing cases.

But another reason may perhaps be assigned by some for the existing nomenclature of the books for the acids under consideration, viz. the fact that the bromic, iodic, and nitric acids contain just five equivalents of oxygen to one equivalent of their respective bases. I can, however, see no reason why the number of equivalents of oxygen contained in these acids should be considered the maximum quantity that shall form an *ic* acid, any more than the number contained in any other *ic* acid. According to the last edition of Thomson's Chemistry, the manganesic acid contains four equivalents of oxygen; the columbic, the tungstic,

the molybdic, the selenic, and the sulphuric, contain only three equivalents of oxygen; the chromic, the arsenic, and the phosphoric, contain only two and a half equivalents of oxygen; the antimonie, the titanie, the uranic, the boracic, and the carbonic acids, contain only two equivalents of oxygen; the oxalic contains only one and a half equivalent of oxygen, while the telluric and the silicic acids contain only one equivalent of this element. Why, then, should the quantity of oxygen contained in one of these groups of acids be considered as the standard of an *ic* acid, any more than the quantity contained in any other group? Why is it not probable, from the analogy of chlorine, that acids of bromine and iodine, containing seven equivalents of oxygen, will yet be discovered?

From these considerations, I feel myself warranted in calling that acid of chlorine, which contains five equivalents of oxygen, by the name of chlorous acid; and that which contains seven equivalents of oxygen, by the name of chloric acid, which, of course, makes the salt of which I am now treating a chlorite of potassa. In adopting this nomenclature, I cannot but think that I am only anticipating the books for a short time.

By way of recapitulation, I will again enumerate the compounds of chlorine and oxygen, with their respective representative numbers, viz.:

1st. Protoxyd of chlorine, which is composed of 1 chlorine 36+1 oxygen 8=44.

2d. Tritoxyd of chlorine—1 chlorine 36+3 oxygen 24=60.

3d. Chlorous acid (now called chloric acid)—1 chlorine 36+5 oxygen 40=76.

4th. Chloric acid (now called perchloric acid)—1 chlorine 36+7 oxygen 56=92.

It will be observed that there is still room for the discovery of a deutoxyd of chlorine, consisting of 1 chlorine 36+2 oxygen 16=42; a tetratoxyd of chlorine (or, more probably, hypochlorous acid), consisting of 1 chlorine 36+4 oxygen 32=68; and a hypochloric acid, consisting of 1 chlorine 36+6 oxygen 48=84.

I shall only add, that the chlorite of potassa is commonly prepared by transmitting chlorine gas through a concentrated solution of the protoxyd of potassium, until (as is commonly but incorrectly said) the alkali is completely neutralised, or, better, till it is either decomposed or combined, so that the solution has no alkalinity. The *rationale* of the formation of this salt, by this process, seems to be as follows:—the protoxyd of potassium consists of equal proportions of oxygen and metal. Now, if six proportions of this oxyd, and six of chlorine, are employed, five proportions of the chlorine are believed to unite with five proportions of the metal, forming five proportions of chlorid of potassium; and the five separated proportions of oxygen are believed to unite with the remaining single uncombined proportion of chlorine, forming one proportion of chlorous acid; and this single proportion of acid is believed to unite with the single remaining proportion of the oxyd, to form one proportion of chlorite of potassa; so that the product must always be five proportions of chlorid of potassium, to one proportion of chlorite of potassa, without any remainder of any sort. Why all the chlorine does not unite with all the metal, and extricate all the oxygen (since the

chlorine and the metal are supposed to have a stronger affinity than the oxygen and the metal), I cannot pretend to tell; for, with all our knowledge on this subject, the science of chemistry still abounds with inexplicable things of this sort.

New Haven, June, 1832.

REMARKS ON FEVER.

Some Remarks on Fever, and on the Prize Essay of the New York State Medical Society for 1828. By JOSEPH COMSTOCK, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

It was a wise remark of the father of his country, that the best method to preserve peace is to be prepared for war. In accordance with this sentiment, we may observe, that the medical world, in a time of general health, should be prepared to meet pestilence. The multiplicity of discrepant views, the extensive introduction of new terms, and the immense number of new publications, require a discriminating and generalising genius, like that of the illustrious BOERHAAVE, to reject the useless and concentrate the useful—to fix facts on a firmer foundation, and to establish paramount principles; not a mere compiler, but one that is able to supply some *new* links in the medical chain, which, even in this day of light, are still lacking, as well as to unite others, which, although well formed, remain still unconnected. He must be an anatomist, a physiologist, a pharmacist, and thorough in therapeutics. He must have the especial power of potent reason and acute discrimination, that he may be able to sweep away those numerous pleasing—sometimes elevated, but still more often unsubstantial—fabrics, which but puzzle, perplex, and often lead into the mazes of error. His pioneers must be those who have given their attention to one class of diseases; to one tissue of anatomical structure, healthy and disorganised; to one set of physiological actions, natural and morbid, and to the peculiar effects of a single remedy.

Half a century is now hardly sufficient to establish a single new article of the *materia medica*, owing to the want of specific attention, the omission of minute observation, and the lack of concentration of time and talent upon one single article.

With everything relating to *fevers*, he must be familiar; for he who knows the whole of their phases, phenomena, and treatment, is the most accomplished and useful physician. They are, in fact, the most extensive, the most variegated, and the most eccentric, of human maladies. He who knows best how to describe, define, and discover them, mitigate them when incurable, cure them when curable, and prognosticate their terminations, has arrived the nearest to the acme of his profession, and will find little difficulty in managing all other systematic complaints.

Still, fever, at this late day, is a name without a specified identity—a disease without a definition. This is not owing to any want of investigation, but to the intrinsic difficulties attendant on the subject itself. These difficulties do not apply, however, to the defining of any one particular fever.

Among the Greeks, *fire* and *fever* were nearly of the same import. *Πῦρ*, *ignis*, fire, and hence *pyrexia*, is employed by HIPPOCRATES himself, to signify fever. The views of the ancients are some of them handed down by tradition, from periods of antiquity more remote than any manuscript now in existence. The universal idea conveyed by the term *fever*, both to the learned and unlearned, is that of heat, or an increase of temperature. And yet to this phenomenon there are striking exceptions; especially in fevers of the typhoid type, and their congeners. And such exceptions do not appear to have been unknown to HIPPOCRATES; for proof of which, the very term *typhus* is one. So different were *some cases* of fever from their common burning form, and yet so fixed was the opinion of *heat* and *fire*, as belonging to all, that a term was used, signifying that there was *fire* still, but that it was latent, hidden, smothered, or covered. Hence the origin of the word *typhus*, as applied to fever; the Greek word *τυφω*, as we are told by DR. GOOD, signifying "to smoulder, or to burn and smoke without vent." I know that some authors derive the term from *τυφος*, a noun, which means *stupor*. Stupor, to be sure, is sometimes a symptom of typhus; but, like spots, and fainting, and delirium, not uniformly so. The authority for the former Greek word, and its propriety, are, therefore, both immensely in its favor.

But the idea that all fevers are *hot* is the traditional and popular *one*, and the world never gives up its first impressions. With the multitude, or, in the language of DR. RUSH, with "the great vulgar and little vulgar," *first* impressions are *last* impressions; they are indelible. The idea, therefore, that all fevers are hot, is accompanied with others, viz. that all require cooling, and cathartics, and depletion. Where we find but few ideas, we always find those few very firmly riveted. Such is the case in this instance. Errors of some kinds may be few, but fatal. When typhus fever first became epidemic, in a certain district into which I was afterwards called, it was mistaken for worms. The attending physician gave cathartics of such kinds as are usual on such occasions. But such was the extreme debility of the little patients, that, when *these* began to operate, *they* began to die. It is believed that not one child lived who was subjected to this treatment. The destructive effects of the depleting mode of practice reached us from the navy, the army, and all parts of the United States. Previous to the invasion of typhus fever as an epidemic, and since its cessation, with the exception of sporadic or endemic cases, evacuations have been used, in the fevers of this country, with decided advantage. I well recollect a case of pneumonia, which ended in recovery, and which occurred about two years after the cessation of the typhoid epidemic. This case required no less than eleven bleedings, with other evacuations.*

On our accurate discrimination and correct diagnosis, sometimes hang life and death. It is highly interesting to the public, that accuracy should everywhere prevail; but errors are most to be lamented when they ema-

* This was an extraordinary case, originating, in a man, from a fall on the frozen ground, from a cart. I mention it as illustrative of the different states of the system, when typhoid diseases prevail and when they do not. During the reign of typhus, I saw two cases, both in men, who received bodily injuries less severe than this man, and both died with typhoid debility—the system, in neither case, never reacting at all!

nate *from*, and prevail *in*, great states, great towns, and great minds. The state of New York—the first in our union in population, in the magnificence of its cities, in the fertility of its soil, and in the liberality and excellence of its institutions—should take the lead, also, in the correctness of its views. New York is the great source of reference and appeal in medical matters, at least in some sections of the union; and, as she is daily rising in glory, her influence and authority are daily increasing. How all-important, then, that *she* should be correct! At the head of her medical colleges, medical schools, medical societies, and medical professors, is *one*, called the STATE MEDICAL SOCIETY, holding its meetings in the capital city. Yet, so late as the year 1828, this society conferred its premium, for the best “*ESSAY ON THE HISTORY, CAUSES, AND TREATMENT, OF TYPHUS FEVER*,” upon a writer who denies the animal origin of diseases, and the hurtful effects of putrefaction and filth in producing fevers!

So great a medical heresy was never promulgated from so high an authority. The whole medical world, HIPPOCRATES, GALEN, AARON OF ALEXANDRIA, RHAZES—all the names of celebrity, remote and recent—PRINGLE, CULLEN, CHISHOLM, WILSON, GOOD, and others, are thus set at nought! As to the history of typhus fever, we are informed, by him, that “the ancient authors on medicine make no particular mention of it” [p. 1]. According to this, HIPPOCRATES is not an ancient author; for he particularly mentions it, and from him the very name is derived.* Under the head of *Prognosis*, we are told that “the chief danger, not only in this, but in all fevers, arises from the disorganising effects of high and uncontrolled excitement,” &c. [p. 7]. Will it be believed, by those who read this, that the writer ever saw a genuine case of typhus fever?

Of debility, he says—“This, then, is the case with the debility in the primary stages of typhus; it is increased by the exhibiting of stimulants, and lessened by evacuating measures” [p. 10]. Further, we are told [p. 11], that “every physician must have witnessed the positively strengthening effects of cathartics, in typhus fevers, before the constitution has been really debilitated by long-continued excitement.”

A writer of this stamp, we may be assured, cannot get along without shedding much blood; accordingly [at p. 22], we have the following passage: he says—“We should draw blood *pleno vivo*, and not rest satisfied with a small dribbling stream; the first mode of bleeding is infinitely preferable to the last, as it effects a more speedy reduction of the pulse, and sooner brings on a state of fainting, which is much to be desired in very violent cases, as it is accompanied with vast relief to the inflamed organ.” Will it be credited, that this sentence, which I have extracted entire, relates to the typhus fever of the United States, in which, “in very violent cases,” the patient faints spontaneously, has a pale countenance, and a weak, tremulous, thread-like pulse, if any pulse at all? Yet such is the fact! The prize pamphlet lies before me, and I have compared my extract with every word and every letter of the original. This sentence has a note in the margin, from which I

* See Latin translation of his works, by HALLEA.

will extract three lines, in order to show the prize-writer's notion of typhus fever, and the disease by which he illustrates it. He says—"We have a striking example of the powerful effect of bleeding *ad deliquium*, or until a sensation of faintness or sickness is produced, in cases of violent ophthalmia."

As adjuvants to bloodletting, DR. HAMILTON's purgative plan, and some pills of his own, formed of calomel, jalap, and aloes, are recommended. But, having discovered that cold bathing was debilitating, its aid is put in requisition, along with bloodletting and cathartics, to further reduce the pulse and prostrate the powers of life. Thus we are told [p. 37], that "these facts unquestionably prove that cold has none of the properties of a stimulant, since it weakens the pulse in a state of health, weakens it still more when already weak, as in a chill, and lessens very much its volume and frequency when in a state of excitement and fever."

As the writer does not allow cold to be a stimulant, he infers that it is a sedative, and says—"It is from its operating in this way, that we can readily account for its extraordinary effect in fever" [p. 38].

So intent is he on drawing blood in typhus, that, under the head of *Congestive Typhus*, which he considers the form putting on the greatest appearance of debility, he says—"If we cannot, however, procure blood from a vein, we must resort to arteriotomy" [p. 45]. We are told that "we are not to rely solely on bleeding, the bath, &c., in the cure of congestive fever. After bleeding," he says, "we should immediately order large stimulating enemata, that the bowels may, if possible, be at once evacuated, and then commence the use of cathartics." For this purpose, he again recommends calomel and jalap [p. 46].

Thus the twenty-fourth aphorism of HIPPOCRATES* is trodden under foot of men, as well as women!

It cannot indeed be discovered, by this essay, what the difference between typhus and inflammatory fever consists in. There is no attempt to define the former; and, as to the treatment, we have seen that it is wholly adapted to the most intense grade of the latter.

As the writer is at odds with the great and good of the medical world, he can hardly get through his pamphlet without being at odds with DR. MAGILL himself.† Having, in the anterior part of his essay, quoted the noted case of the fever at Oxford, in 1577, occasioned by the effluvia of a filthy prisoner, who was tried at the Black Assize, and who poisoned the court and spectators—and having referred to other similar instances at Exeter, Taunton, and the Old Bailey—he, in the latter part of his essay, adduces the opinions of DR. BANCROFT and himself, founded on the filthy manner of living of the Russian boors, the Greenlanders, the Esquimaux, the Samoides, &c., as triumphant proofs of the harmlessness of animal putrefaction and the eating of carrion! He ought to have called to remembrance the power of habit, which accounts for all these phenomena; and that Rowland Jenks, the criminal at the Black Assize,

* SECT. 1.—Women resorted to family physic, with very pernicious effects, in typhus fever.

† ALFRED T. MAGILL, M.D., of Winchester, Virginia, author of the Prize Essay. New York, 1829. CHARLES S. FRANCIS, 252 Broadway. pp. 69.

who poisoned the court and some five hundred others by the effluvia of his clothes and person, *was not himself affected*.

And now, once for all, we may with truth remark, that it is not one cause alone which produces fever. There is a predisposition to be affected in those who have fevers, and there is an idiosyncrasy to resist the most concentrated causes in those who escape. Hence, it was never known that the most *virulent virus* prostrated every single individual exposed to its influence. No; not even the plague, smallpox, or bite of a rabid animal. A predisposition to be acted on sometimes pervades a ship's crew, an army, a court, or a family. At other periods the majority escape, and one only, or a few, are attacked. In fact, an immunity is more common than an epidemic, although far less noticed. The pages of history record only battles, invasions, sieges, and massacres—sudden deaths, violent deaths, plagues, and epidemics. The times of peace, and plenty, and prosperity—of health, public and private, pass unheeded.

The plague of India, and the present pestilence of Europe, the *chólera*, is acknowledged to be a disease of the typhoid diathesis. It is treated by the celebrated MAGENDIE, at Paris, with hot wine and strong punch. It is, therefore, very important that typhoid diseases should be well studied, and their nature fully understood. He who thinks that he finds a typhus fever with a full, hard pulse, a tense fibre, and which requires repeated bleeding and drastic cathartics, is utterly mistaken. There never was, and never can be, any such a *typhus fever*. Neither ophthalmia, cephalitis, gastritis, nor carditis, are claimed to belong to its class, neither pneumonia* nor phrenitis to partake of its nature. If there is ever any inflammation attending typhus, it is of the erysipelatos kind, in which bleeding is death—at least sometimes. In a case of typhus fever, the most distinctly marked, with all the symptoms of complete debility, such as fainting when lying on the bed and on the back, the first attack was that of erysipelas in the face and forehead.

It would seem that every kind of fever has been called typhus by some indiscriminating writers. The author of the prize essay, speaking of the pulse, says, that "in some cases it is tense and hard." Now we deny the existence of such a pulse in typhus fever. It is known only by a soft, feeble, and easily compressible pulse, whether or not it be increased in frequency. In general, however, the pulse is very much accelerated, varying from one hundred and twelve to one hundred and forty in a minute. We apply the terms *typhus* and *typhoid* exclusively to diseases of direct debility. Cholera is undeniably a disease of this class; so are cynanche maligna and scarlet fever. Cynanche trachealis, or croup, on the contrary, is a disease of a contrary diathesis, the attending fever being inflammatory, or a *cauma*. The last case of this the present writer had, his little patient was saved by the very free extraction of blood by leeches applied to the throat, aided by emetics of ipecac., tartarised antimony, and lobelia.

These remarks on the prize pamphlet would not have been given the public, had not its doctrines been sanctioned by the high authority before

* Pneumonia typhoides is here, of course, excepted.

mentioned, and been so utterly discrepant to our own views of the subject, founded on a large experience. They are made with a spirit of conviction of the danger of its doctrines, and not of hostility to any person or persons. The writer of it deserves the credit of wielding a potent and polished pen, which is fully conceded him.

Lebanon, Ct., June, 1832.

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BOSTON, JULY 11, 1832.

CHOLERA AT NEW YORK.

AFTER our last paper went to press, we had intelligence of the occurrence of several cases of cholera at New York. Its introduction into that city appears, so far as facts have come to light, to be wholly independent of contagion. How far its subsequent progress has been aided by this cause, we have no means of judging.

The Board of Health report every day, at 12 o'clock, the number of new cases and of deaths. On the 5th instant there were 20 cases and 11 deaths; on the 6th, 30 cases and 19 deaths; and on the 7th, 42 cases and 12 deaths. The progress and fatality of the disease, thus far, has been much less than could have been expected in a commercial city of 200,000 inhabitants.

At the suggestion of our City Council, the Consulting Physicians have designated Drs. BIGELOW, WARE, and FLINT, as a Medical Committee, to visit New York, and acquire and communicate knowledge of the disease as it there prevails. These gentlemen left the city on Sunday last, and are now engaged in the duties of their commission. The result of a deputation so wisely selected will be communicated, as soon as possible, to our readers. In the mean time, we offer below a letter from Dr. PAINE, of New York, which contains some interesting details of the post mortem examination of two (and we believe the first two) cases of the disease that proved fatal in that city. The letter was addressed to a distinguished practitioner in this city, to whom we are indebted for the liberty of publishing it.

New York, July 3d, 1832.

DEAR SIR,—The reports respecting the existence of cholera in this city are so contradictory, that you may be desirous of knowing the absolute truth; but I am chiefly induced to make you this communication for the purpose of submitting to you the morbid appearances on dissecting two individuals who were supposed to have died of this disease, and the notes of which I took during the examination, which was conducted by Drs. CARROLL and LUDLOW, and myself.

The subject of the first case is the man who lived at the corner of Reed and Greenwich streets. I did not see him till about twenty minutes after death, and have derived my knowledge of his symptoms from his wife and his physician.

He was forty years of age, very robust and corpulent—pursuing the trade of pianoforte making—of intemperate habits, and had drank rather

excessively on Sunday, the 1st instant, though was sober enough to accompany his wife to church in the evening. He had complained of a sense of tightness about the region of the stomach, for four or five days previously, but at no time of any pain in his head, before or during the disease. His appetite remained good till the noon of that day, when he ate moderately of fried fish and potatoes. Soon after his return from church, he retired to bed, remarking to his wife that he had an unusual commotion in his bowels, which occasionally interrupted his sleep till 12 o'clock, when he first suffered the attack of vomiting and purging, attended by great distress in the abdomen.

The house was immediately deserted by the other occupants, and no messenger could be obtained by his wife, to procure a physician, till five o'clock in the morning, at which time the patient was visited by DR. CAMERON. The doctor informs me that he found him violently affected with vomiting, purging, and most convulsive spasms; the features sunken and the eyes staring; the pulse insensible at the wrist, and the surface cold, and covered with a clammy sweat; the countenance black and terrific; tongue of a dark purple during the spasms, becoming opalescent as the spasmodic action abated; the fluid rejected was watery, consisting probably of the liquids he was permitted to drink; his dejections resembled rice water, of the consistence of cream. The faculties of his mind were unimpaired to the last, and, during the short intervals of ease, his muscular strength was not sensibly diminished. He passed no water after the arrival of the physician.

Small quantities of laudanum were administered, and the usual external applications made, with the effect of diminishing the symptoms generally for two or three hours, at which time reaction began to take place, and at ten o'clock he was bled to the extent of ten or twelve ounces. The symptoms, however, had been again increasing, and continued to become more violent till the time of his death, which took place about eleven o'clock, the patient having suffered about eleven hours.

The lividness disappeared from his skin about half an hour before death, and returned, particularly to the face, about an hour after death.

I first saw him about twenty or thirty minutes after he had expired. The features had recovered from their contraction, and, with the exception of the eye, presented no unusual aspect. But the eye was remarkably expressive of that influence which the disease has been supposed to exert on the nervous system, and its wild, glaring stare was startling to the spectator. It was looking forward, and was much exposed by the contraction of the eyelids.

The muscles of the body were rather rigid, and the surface very cold. Spasmodic contractions of the lower extremities were still taking place; and I am informed, by DR. CAMERON, that the legs continued to move occasionally for an hour and a half after his death. The tongue and inside of the lips exhibited a dead white, with a slight shade of blue. This color was independent of the coating, which did not exist to any remarkable extent. There were several livid patches on the thorax and shoulders.

The dissection was commenced in about an hour and three quarters after death. At this time the face had again become very livid, and the skin was discolored extensively in other parts. The eye retained its remarkable wildness, much of which was remaining four hours afterwards, when we finished the dissection. The muscles still slightly rigid, but no spasmodic motion could now be observed. The incision penetrated about

three fourths of an inch of cutaneous fat, and I was surprised to find the muscles so florid in a case of so much obvious congestion.

On opening the abdomen, the stomach and large intestines appeared very much inflated—the small intestines only partially so. The stomach and small intestines were florid, denoting great vascularity of the internal coat. Large intestines natural. Mesentery and omentum loaded with fat. No turgescence of their veins, or of the veins of the diaphragm. No fluid in the cavity.

The stomach contained a pint of a fluid resembling a weak infusion of coffee. A bright redness existed in the upper portion of the stomach, occupying about one third of the organ, and terminating abruptly near the cardiac orifice. All the inferior portion was slightly livid, and, at the pyloric orifice, a livid redness began abruptly, and extended through the whole tract of the small intestines.

In the large intestines; the mucous membrane was natural. A large quantity of a fluid, resembling oatmeal gruel, and of a shade between that and rice water, existed throughout the intestinal canal. There was rather more than the usual quantity of mucus, resembling cream, though not so white.

Liver externally natural—perhaps rather lighter than usual; on making incisions, the black blood flowed more freely than in a healthy state of this organ. The gall bladder contained about an ounce of black bile. The ducts perfectly natural, the bile flowing freely through them. Spleen and pancreas natural. Bladder empty, but not particularly contracted. The veins of the right auricle of the heart rather fuller than usual. No turgescence of the coronary veins. Lungs blue, and turgid with black blood to a very remarkable degree. Cavities of the heart and *venæ cavæ* entirely empty. No fluid in the thorax. Brain engorged with black blood, and the ventricles contained four or five ounces of serum. We were not permitted to examine the ganglia and spinal marrow.

CASE 2. We immediately proceeded to examine the case of Betsey, the black girl, who resided as cook at Mr. A. Thomas's, No. 185 Reed Street, about twenty rods from the house of Mr. G., and where she had lived for several months. Betsey was very temperate and regular in her habits, but a large feeder—of slender frame, but capable of her duties, and generally enjoyed good health; about 20 years of age. She attended church in the afternoon of Sunday, the 1st instant, and made no complaint till six o'clock of that evening, when she felt some sickness and pain at her stomach, and went to bed. At two o'clock, A. M., the family were awakened by her groans. The morning after the examination, I received from her attendants the following account of her symptoms:—She was found stiff with the cramp, and severely affected with vomiting and purging; complained of great distress over the whole body; eyes staring and sunken, and the features contracted. Fifteen drops of laudanum and a little camphor were given, which removed the vomiting in a few minutes. The same dose was repeated in an hour after. The purging, however, continued, and the spasms constantly recurred, attended by great suffering. Profuse sweating took place towards morning, when the surface became rather warmer. At 11 o'clock, she began to sleep, and was then left by her attendants till four o'clock, at which time she was found dying.

The fluid vomited and dejected is said to have resembled rice water. She had no physician. In the progress of the disease, a dose of salts was given, and occasionally wine and water.

The dissection was commenced at 15 or 20 minutes after death. Every muscle was violently contracted, and remained so, without any motion, however, for an hour and a half, when the examination was finished. Skin livid, and petechiæ numerously distributed, appearing with great distinctness on the schlerotic coat of the eye. Features rather sunken; expression of the eye remarkably wild and glaring, corresponding exactly with this appearance in the other case. The eyes were also very much exposed, and turned upwards.

The stomach and large intestines externally natural, and free from flatus. Small intestines livid. Veins of the omentum and mesentery more than usually full. Mucous coat of the stomach slightly discolored; scarcely a morbid appearance. This organ contained a small quantity of a fluid resembling rice water. The lividness of the small intestines existed in the serous membrane, the mucous coat being natural. These organs contained a considerable quantity of a yellow fluid. The large intestines were filled with a fluid exactly resembling rice water, with flocculi like "half-dissolved flakes of snow." Mucous membrane natural. The mucus, which resembled a creamy substance, did not exceed the natural quantity.

Liver very purple—the left lobe in a plethoric state, and the right lobe very turgid, with black blood. The gall bladder contained about an ounce of yellow bile. The ducts perfectly natural. Spleen and pancreas natural. Urinary bladder contracted to a small, hard knot, evidently owing to the spasm. No fluid in the cavity of the abdomen. The lungs were found in a perfectly natural state. The heart was engorged with black blood, as were also the venæ cavæ. No fluid in the thorax. We were too much fatigued to enter on the examination of the brain, &c.

JULY 4.—Cases of this disease are now constantly occurring, and it attacks all ages from infancy. The symptoms are uniformly such as I have described. DR. BLISS informed me to-day that he witnessed the dissection of a child, in which the morbid appearances were exactly such as I have described in Betsey's case. The invasion is very sudden, and without any premonitory symptoms. I believe some have recovered. They generally die in about 12 hours from the attack. It has now appeared in almost every part of the city, and no one thinks of tracing it to contagion. The vomiting is easily allayed by small doses of laudanum. The spasms are obstinate. The collapse is immediate, and no reaction takes place. In short, it is *death* at the very invasion. The probable number of deaths to this time, 6 P. M., is from 30 to 40.

Very respectfully yours,

To DR. J. C. WARREN, Boston.

MARTYN PAINE.

Valuable Communications are again excluded by want of room.

Whole number of deaths in Boston for the week ending July 7, 32. Males, 14—Females, 18.

NOTICE.

THE Copartnership heretofore existing between the Subscribers, under the Firm of JARVIS & PEIRSON, is dissolved by mutual consent. N. JARVIS will settle the affairs of the late Firm.

NATHAN JARVIS.

GEORGE W. PEIRSON.

NATHAN JARVIS will continue the Business of Manufacturing and Selling *Drugs and Medicines*, at 168 Washington Street. Physicians and others will be supplied with Choice Medicines on reasonable terms.

July 11.

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[NO. 23.]

ON CONGESTION.

[Communicated for the Boston Medical and Surgical Journal.]

BY CONGESTION is understood a preternatural and disproportionate accumulation of blood in the vessels of some particular part of the animal system. Congestion makes a great figure in the writings of some late pathologists; but it is believed to be always a mere effect, and never a cause of disease, and that it is a matter of comparatively small consequence, and, therefore, that an undue importance has been attached to it. However, be this as it may, it appears to me certain that erroneous opinions, in relation to it, are at present widely prevalent, and therefore it is a topic well worthy of consideration.

The heart is well known to be the principal, if not the sole organ, by whose power the blood is propelled from the internal and central parts of the system to the external and extreme parts. It is well known, also, that the atmosphere presses upon the human body, with the weight of a column of quicksilver of about thirty inches, or a column of water of about thirty-three feet. This is calculated to be equivalent to about fifteen pounds to every superficial inch, or about fourteen tons upon an ordinary sized man. Now the pressure of the atmosphere is a powerful antagonist, or opposing power, to the action of the heart in filling the superficial capillaries. When we consider these facts, it will be obvious that the relative distribution of the blood, between the internal and external parts of the system, must inevitably be varied by any disturbance of the balance between the strength of the action of the heart and the atmospheric pressure. In fact, this disturbance of balance, between these two antagonist powers, must be the most common, and even the principal cause of congestions. Conclusive evidence of this position is found in the familiar fact, that, on the exhaustion of air from a cup applied to any part of the skin, a considerable congestion of blood, in the vessels of the part over which the cup is applied, immediately takes place.

But, by those ignorant of the variations in the relative distribution of the blood between the external and internal parts of the system, in consequence of a disturbance of the balance between the strength of the action of the heart and the degree of atmospheric pressure, an explanation of the swelling of a part that is covered by the receiver of an air-pump, from which the air is more or less exhausted, has been

attempted in two other ways, viz. : by the expansion of the mass of the circulating fluid itself, and by the rarefaction of the air supposed to be contained in it. As liquids, however, are but slightly compressible and expansible by increase or diminution of pressure, the first solution is altogether inadmissible. The latter, indeed, has more plausibility, but is nevertheless entirely inadequate to the purpose for which it has been used. There is not, in reality, sufficient air contained in the blood to produce a twentieth part of the effect in question ; and, besides, the phenomena that are to be explained take place under such circumstances as would not, in any way, affect the expansibility of what little air is actually contained within the system. In my view, there is conclusive evidence that superficial congestion is not occasioned by the expansion of the air in the blood, in consequence of a diminution of atmospheric pressure, from the fact, that increasing the strength of the action of the heart, without any diminution of atmospheric pressure, equally occasions superficial congestion. That the equable distribution of the blood, between the internal and external parts of the body, is mainly dependent upon the relative strength of the action of the heart, and the degree of atmospheric pressure upon the surface of the body, is supported by the most satisfactory evidence, and (as I think) may be considered as resting upon the highest proof. Various pathological phenomena will be mentioned hereafter, which prove these points still more decisively.

As the brain is surrounded by an impenetrable and unyielding bony paries, from which atmospheric pressure is entirely excluded, and, besides, is situated at one of the extremities of the body, remote from the centre of the circulation—it is much more liable to be affected by variations, in the relative strength of the action of the heart, and the degree of atmospheric pressure upon the surface, than any other part of the system. Next to the encephalon, the thoracic viscera are the least affected by the weight of the atmosphere ; and the abdominal viscera are undoubtedly considerably less under its influence than the surface of the body.

One of the purposes answered in the animal economy, by having the brain surrounded by a bony paries, from which atmospheric air is excluded, is undoubtedly the prevention of immediate death, under great hæmorrhage, by a greater relative determination of blood to this viscus ; since a greater proportion of blood is necessary for the continuance of the functions of the brain, than for a continuance of the functions of any other part ; and, in cases of considerable hæmorrhage, if this organ had not more than its proportional share of the vital fluid, life must cease in many instances where the patient now recovers.

Inflammation, independent of any disturbance of balance between the strength of the action of the heart and the degree of atmospheric pressure, also occasions a congestion of blood in the vessels of the part in which it is seated, and this congestion is essential to inflammation as a disease.

Any considerable local atony, or diminution of the power of resistance to the *vis a tergo*, in the vessels of any particular part or organ, likewise occasions a congestion of blood in such part, independent of any disturbance of balance between the two antagonist powers just mentioned.

Great intellectual exertion, and, as is supposed, a paroxysm of raving in mania, occasion a temporary preternatural determination of blood to the head ; but, as this is always inconsiderable and transient, and, as a symptom, never requires the interference of art, it is not to be considered as a pathological congestion.

Sometimes two or more of these causes will be combined, in the production of particular cases of congestion. For example : in a superficial entonic or active inflammation, the preternatural strength of the action of the heart, which always accompanies such a case, if it is of any considerable extent, concurs with the inflammation itself, in the production of a congestion in the vessels of the diseased part ; and, in an atonic or passive visceral inflammation, in connection with which, the strength of the action of the heart is always diminished, the atmospheric pressure upon the surface of the body concurs with the local disease, in the production of the congestion. In the last case, a diminution of the vital energies of the vessels of the diseased part, in a proportion greater than that of the rest of the circulating system, is another concurrent cause of congestion in the seat of the topical affection.

From these laws, it will be obvious that congestion may be produced in the following five ways :—

1st. General superficial congestion takes place when the strength of the action of the heart is preternaturally increased, so as to disturb the balance between atmospheric pressure and the *vis a tergo*. If this preternatural increase of the strength of the action of the heart is not extreme, mere simple superficial congestion is all that takes place ; but if it is extreme, the blood is so forcibly propelled from the centre to the extremities of the circulation—or, in other words, from the heart into the capillaries—that a congestion also takes place in the minute vessels of the brain, as well as in those of the surface of the body. This congestion in the brain, as well as in the surface, is owing to the fact, that atmospheric pressure is entirely excluded from the encephalon, by means of the bony paries with which it is surrounded ; so that there is no antagonist power, in this part of the system (except the mere contractility of the coats of the bloodvessels), to the *vis a tergo*. General superficial congestion, produced in this way, is always of an entonic, sthenic, or phlogistic character ; and an ordinary case of true cauma or synocha affords a familiar illustration of it. The addition of cerebral to superficial congestion, shows a still more intense degree of entonic, sthenic, or phlogistic diathesis, and is well illustrated by neglected or ill-treated cauma or synocha, which passes into cephalitis-caumatodes. This sort of congestion can be relieved only by reducing the strength of the action of the heart, which is effected, in by far the best manner, by bloodletting ; but, as is believed by many, may be accomplished also by sufficiently large quantities of nitrate of potassa, and some other agents of similar powers, though these means are probably less eligible than depletion.

It is well known that in pure and unmixed cauma or synocha, and in all the unequivocal and exclusively caumatoid phlogotica, there is a very considerable preternatural increase of the strength of the action of the heart ; and (as we should expect) there is a consequent congestion of blood in the vessels of the surface of the body. This is evinced by the strong

sensation of superficial fulness and distension which the patient constantly feels, and by the actual turgescence and tumefaction visible even to the bystanders. When the preternatural strength of the action of the heart, in these diseases, is removed (as it can be perfectly done), either by depletion or very large and often-repeated doses of nitrate of potassa, etc., the fulness and distension of the surface immediately disappears, and it assumes a comparatively shrunk appearance. That these agents produce this effect, in consequence of diminishing the preternatural strength of the action of the heart, is evident from the circumstance that the effect in question never takes place without this previous reduction. Now, when we let blood, we weaken the force of the action of the heart, without lessening the pressure of the atmosphere. The capillaries of the surface are consequently not so well filled with blood, on account of this disturbance of the balance between the strength of the action of the heart and the atmospheric pressure; a paleness of the skin is produced, and there is a greater relative determination of blood to the viscera, upon which there is no material atmospheric pressure.

But it may possibly be supposed that bloodletting produces this effect exclusively by its reduction of the mass of the circulating fluid, without at all varying the relative distribution of the blood between the internal and external parts. It is, however, a well-ascertained fact, that the process of depletion actually varies the relative distribution of the blood—perhaps even more than in the same proportion in which it lessens the mass of the blood circulating in the vessels. The disproportionate variation in the relative distribution of the blood, which is produced in this way, is, however, always from the surface, and towards the viscera, and particularly towards the head. In proof of this, I shall hereafter quote several physiologists and pathologists, who treat directly upon this point. It is conclusive that the shrinking and paleness of the surface, which follow an ordinary depletion of blood, are not entirely or even mainly occasioned by a mere reduction of the mass of the circulating fluids; that exactly the same shrinking and paleness may be produced, in the same circumstances, by a sufficiently free use of nitrate of potassa, tartrate of antimony, etc., without any depletion, or any evacuation of any sort. In cases where there was no previous diminution of the strength of the action of the heart, and consequently no congestion of blood in the vessels of the brain, a mere ordinary bleeding seems even to increase the positive, as well as the relative quantity of blood in the head; but an extreme depletion diminishes the positive, while it increases the relative quantity. In cases where there was very considerable previous atony, and very considerable congestion in the vessels of the brain, a moderate bleeding seems likewise to increase both the relative and the positive quantity of blood in the head. We cannot say what would be the operation of a very large bleeding in such cases, in relation to cerebral congestion, because such a bleeding, under such circumstances, I believe infallibly destroys the patient.

2d. General superficial congestion sometimes takes place from a paralysis of the capillaries of the surface, and this even when the strength of the action of the heart is greatly impaired. This sort of congestion is always atonic or asthenic, in the highest degree. I have

never witnessed it, except, in a few cases, immediately on the attack of that singular disease, typhus syncopalis—and in this only in instances that were speedily fatal. I have been informed of its occurrence in some cases of rosalia or scarlet fever. In the few instances in which this sort of congestion has fallen under my observation, the most shocking swelling of the whole surface of the body has rapidly taken place, and the internal parts of the system have seemed to be almost destitute of blood. The most powerful stimulants are the only means, within my knowledge, that have ever seemed to afford any relief in this sort of congestion; and hitherto even these have proved only palliatives, and not remedies, in those cases of it which have occurred in typhus syncopalis.

3d. General visceral congestion takes place only when the strength of the action of the heart is more or less impaired, so as to disturb the balance between the *vis a tergo* and the atmospheric pressure upon the surface of the body. In this sort of congestion, there is a greater determination of blood to the head than to any other part, and a greater to the chest than to the abdomen; because this is the order in which they are least affected by atmospheric pressure. This variety of congestion is always atonic, and it exists to a greater or less extent in all the species of typhus—also in all cases accompanied with debility of the heart and arterial system; and, to a greater or less degree, it is the invariable result of free depletion, except in general entonic diseases. Congestion of this character can be remedied only by invigorating the system generally, and particularly by increasing the strength of the action of the heart.

I have observed that the viscera are not materially affected by the external atmospheric pressure. This is strictly true, with a very slight exception; for, so far as the external bulk of the body is actually lessened by this pressure, they are slightly compressed, when not defended by a bony paries. The brain, however, is surrounded by an impermeable and unyielding bony paries, into which atmospheric air can have no access. Now it will be obvious that the more the force of the action of the heart is weakened, either by the abstraction of blood or by any other means, the less able will it be to fill the superficial capillaries upon which the atmosphere presses, and consequently the greater will be the determination of blood to the viscera; and the greatest must necessarily be to the brain, because this is least affected by atmospheric pressure—or because, in truth, it is not at all affected by such pressure.

Of late, indeed, it has been contended, by some distinguished physiologists, that atmospheric pressure is the sole agent in producing the motion of the blood in the veins; but though I do not think that this has been shown satisfactorily, and though I do not doubt that the motion of the blood in the veins is mainly caused by a power which is to be sought for in the system—yet, as I have just said, I consider it as capable of the most satisfactory proof, that the equable distribution of the blood, between the internal and external parts of the body, is mainly dependent upon the relative strength of the action of the heart, and the degree of atmospheric pressure upon the surface. I consider it certain, that the reason why there are general visceral congestions in low typhus, of

whatever species, is the diminution of the strength of the action of the heart, while the atmospheric pressure remains the same ; and the reason why there are greater congestions in one viscus than in another, is principally a greater diminution of the power of resisting the combined force of the heart, and of atmospheric pressure, in the vascular system of such viscus.

But it may, perhaps, be supposed that this last statement is the result of reasoning merely ; and it may be inquired, how do facts correspond ? Setting aside the personal observations and experience of the author of these remarks, and of the professional gentlemen with whom he has practised, let us examine well-known and published testimonials, from highly distinguished physicians. DR. GOOD says—"In the commotion which takes place from copious venesection, it should be observed that there are often local determinations" (of blood) ; "for, the more we lessen the general strength, the more we make an inroad upon the instinctive power of preserving a balance in the circulating system ; and, as the determinations are almost uniformly accompanied with an *apparent, though a deceptive increase of force, as well as fulness in the pulse, and other symptoms of great violence of action*, the friend to phlebotomy is too often stimulated to an excessive use of his lancet, through several times in succession, still wondering at the perversity of an action, whose mischievous, and, it may be, fatal perseverance, is only maintained by his own exertions."

DR. PRING, upon the subject of congestion of blood in the brain, remarks :—"It is commonly, and, in my own experience, it has been invariably the case, that those who have sustained great losses of blood suffer more or less from what is called *determination to the head*." "Most commonly the symptoms are intense pain and throbbing in the forehead or back part of the head, with a pulse seldom under ninety." DR. PRING adds—"I have known these symptoms to proceed on, with a pulse from a hundred and twenty to a hundred and forty, to delirium, APOPLEXY, and death."

DR. COPLAND (in a paper in the London Medical Repository) observes :—"The current of opinion has lately set strongly in favor of the supposition (and it is no more than supposition), that whatever symptoms appear, which may be referred to cerebral excitement, there must consequently be inflammation, general plethora, or local determination." "That the last named state of the circulation may be often present under such circumstances, we will readily allow ; but that either of the other two conditions should exist, or be necessary to the production of the manifestations in question, is perfectly gratuitous, and what we positively deny." "In support of this, we can refer to facts derived from experiment and observation." "Bleed a man, or any other animal, frequently, largely, but gradually, either when in good health, or when suffering under some disorder not connected with cerebral excitement, and, as a consequence of such conduct, if the depletion be carried too far, we shall have symptoms denoting determination to the brain. If further depletion be instituted, delirium will generally supervene ; and, even if depletion be carried so far as to produce death, the cerebral derangement will be manifest to the last moment of existence. On

dissection, while all the other textures shall be found entirely deprived of blood, the brain will generally evince more than natural vascularity, and always an infinitely greater fulness of blood, relatively, than any other part of the body." "We will allow that these effects are not observed, if very large quantities of blood are lost" (at once), "so as to deprive the animal of life, in a very short space of time: but here the reason is obvious; the animal dies before the vascular system is accommodated to the mass of the blood circulating in it." "Now we assert that we have observed these phenomena which we have described, and have seen those appearances in individuals whose lives we consider to have been lost by ultra-depletion; and we further know that the same phenomena have been uniformly noticed in experiments upon brute animals." "But we shall be excused if we briefly illustrate this important point by more familiar examples." "How often is it observed, in profuse uterine hæmorrhages, that, when the patient is but just saved from the immediate loss of blood, great care is requisite to save her from the nervous derangement which uniformly supervenes." "Irritative fever is always the consequence, and *is more immediately the consequence of the local determination and irritation to which the brain is subjected*,* notwithstanding that the state of the parts concerned in the process which she had previously experienced, might be supposed to divert from that organ." "In such cases, the arteries running to the head beat violently; sensation is quick and lively; the least irritation of the organs of sense, or excitement of moral affections, is apt to induce delirious manifestations; the lower extremities are pale, shrunk, and cold, while the head is hot, painful, etc." "Now all know the treatment which alone succeeds in these cases—which treatment further illustrates that peculiar state of the vascular system, and of the body itself, in which the cerebral excitement originates." "But not only *is local determination, and especially to the brain, the consequence of depletion; it still more familiarly supervenes upon a low state of the vital energies of the system*." "The individual, in whom these energies are perfect, is seldom subject to those disorders which depend upon local plethora or excitement; it is principally those, in whom the vital or nervous powers of the constitution are greatly weakened, who experience local determinations, or those derangements in the circulation of the brain, which are evinced by corporeal and mental derangements." "It is chiefly to those individuals, that the dictum *ubi irritatio ibi fluxus* is strictly applicable; and, whether the irritation be of a physical or a moral nature, the effects will be apparent, and commensurate with its intensity, or with that disposition of the system to which we have alluded."

BONNAR records the phenomena which appeared on *post obit* examination of a person who died from hæmorrhage:—"A man, aged 34, of

* Our author appears to me to be unfortunate in this attempt at a *rationale*. The nervous disturbance produced by great hæmorrhage, and the irritative constitutional febrile affection, which takes place at the same time, in my view is not, as is supposed, the result of the increased determination of blood to the brain; but the former is probably the effect of the weakness produced by what is, in reality, a positively deficient supply of blood to the brain, and the latter is a perfect *hectic of inanition*, produced by a want of nutrient matter in the greatly diminished mass of circulating fluid, for the assimilating vessels to act upon, and it is perfectly analogous to what takes place from actual starvation. The *cerebral excitement* spoken of, in the next sentence but one, is mere irritation, originating in the same manner.

a spare habit of body, lost, by epistaxis, about three pounds of blood." "This took place about the end of August." "In about ten days afterwards, as soon as he had recovered his former strength, the bleeding recurred, and continued to do so at intervals, till the third of October, when he died." "The quantity of blood which he lost was carefully measured by the attendants, and was calculated to be upwards of 35 pounds." BONNAR remarks that, "in the history of this case, some facts of considerable importance must be noted, and," he says, "they ought always to be kept in recollection, during the employment of large depletions." "To the very last, the muscular strength of the patient remained tolerably good." "Almost immediately before death, he could raise himself in bed; and, had it not been for the oppressive, and most painful" distressing "sickness, he would have been capable of a very considerable degree of exertion, at a time when not many ounces of blood were circulating in his system." "After every one of the attacks, *the pulse rose considerably in strength and frequency.*" "The blood was, in every instance, very soon coagulated, but showed none of the bulky coat." BONNAR remarks, that "*the rising of the pulse, after excessive bleeding, has been remarked by many of the best pathologists.*" He adds—"A knowledge of the phenomena, resulting from excessive losses of blood, ought to teach us, that *an excited state of the arterial pulsation** is by no means a proof of the necessity of depleting measures," etc.

DR. JAMES JOHNSON says—in a brute animal, bled to death by opening the jugular veins, "the contents of the cranium and spinal canal were so gorged with blood, that it might, at first sight, have been imagined that bleeding would have saved the animal." He declares that, "in every case where brute animals were bled to death, there was effusion of water in the brain, and on the spinal cord, often accompanied with red spots, like inflammation." He says—"Every one must have seen effusion in the chest, from carrying bloodletting too far, in certain kinds of pneumonitis, accompanied with typhoid fever, and with irregular distributions of blood." He adds—"With these facts and reasonings before our eyes, is it not evident that the present rage for subduing fever by bloodletting alone, and that not by pints, but by half-gallons at a time, is pregnant with danger, and likely to bring a valuable remedy into utter

* It should be particularly remarked, that the "apparent, though deceptive increase of force, as well as fullness, in the pulse, and other symptoms of great violence of action," of which DR. GOOD speaks, as so often following bloodletting, and *the considerable rising of the pulse* "in strength and frequency," and "the excited state of the arterial pulsation," of which DR. BONNAR speaks, as following each attack of hæmorrhage, are, in fact, merely "apparent and deceptive," and do, in reality, consist in irritation instead of strength. I have often witnessed what is so generally called "the rising of the pulse," from depletion, and, so far as relates to *strength of action merely*, I have uniformly found that the artery yielded, and pulsation became imperceptible, under much less pressure, after bleeding, than it did before. I think I may affirm safely, that *bleeding always, and without exception*, diminishes the *force* of the pulse, as well in atonic as in tonic cases, and as well in cases in which neither of these conditions exists. I repeat, that what is called a *rising of the pulse*, after bleeding, is not an increase of the *strength* of the arterial action. When the pulse is preternaturally *strong*, and at the same time small or contracted, and wirey, or feeling like a tense cord, and perceptible both in its systole and diastole (as in tonic phlegmonous enteritis)—bleeding, while it diminishes the *force* of the pulsation, also relaxes the contraction, so that the artery becomes larger, and the pulsation more distinct, as well as softer and weaker. This some may call a *rising of the pulse*; but such a condition of the circulation never occurs, except in highly phlogistic diseases. When the pulse is preternaturally weak, and at the same time small or contracted, and wirey, and feeling like a tense cord, and perceptible both in its systole and diastole (as in atonic and erythematic enteritis), bleeding neither makes it more full, nor more distinct, nor produces any other effect that can justly be called a *rising of the pulse*. Certainly a short or quick, and a jerking beat of the artery, which often follows injudicious bleeding, does not constitute a *rising of the pulse*, since it always indicates both a diminution of fullness, and a diminution of strength.

disgrace?" "Indeed" (he says, in another place), "we have frequent occasion to deplore the ultra-depletory mania, which has seized some weak brains of the present day, and much fear it will bring a character of rashness and danger on a most important remedy, when judiciously managed."

4th. Local congestion may be occasioned, in any part of the system, by any considerable diminution of the tone, and consequently in the power of resistance to the *vis a tergo*, in the vessels of such part. This is obviously a congestion of an atonic character, and can be remedied only by obviating the local atony, upon which it depends. It may be considered as certain, that any considerable weakness, or deficiency in the power of resistance, in the coats of the bloodvessels of any particular part or organ, in comparison with the rest of the vascular system, will occasion a preternatural determination of blood to such part, independent of any increase or diminution of the strength of the action of the heart; and I shall not now spend time in proving it.

5th. Local congestion may be occasioned, in any part, by the presence of inflammation of any species, to which it is always more or less essential. Inflammatory congestion may be either entonic or atonic, according to the character of the inflammation of which it is a part. It is to be relieved only by relieving the inflammation, which, if entonic, will require antiphlogistic treatment merely; but if atonic, it will require a deobstruent method, and, in low cases, excitants in conjunction.

Congestion may be said to be *essential* when it belongs invariably and necessarily to any particular disease, and when, in fact, it constitutes an essential part of such disease: and it may be considered as *accidental* when it is not necessary to, does not occur invariably in, and cannot be considered as making an essential part of, a disease, but only happens occasionally in certain cases of it.

From what has been said, it will be perceived that there are at least four sorts of congestion, viz. :—

1st. *Simple Superficial Congestion*, produced by a preternatural increase of the strength of the action of the heart.

2d. *Simple Visceral Congestion*, produced by diminution of the strength of the action of the heart.

3d. *Paralytic Congestion*, produced by a preternatural weakness and deficiency in the power of resistance in a part or the whole of the capillaries, or in the coats of the vessels of any particular part or organ, while the strength of the action of the heart remains in its natural state, or, at least, is not diminished in the same proportion. And

4th. *Inflammatory Congestion*, produced by the presence of topical inflammation, of some sort or species, in the part in which the congestion exists.

The first sort of congestion is always of an entonic, sthenic, or phlogistic character; the second and third sorts are always of an atonic or asthenic character; while the fourth sort may be either entonic, irritative, or entonic, according to the specific nature and the diathesis of the inflammation, and according to the general condition of the subject of the disease.

At the present time, when congestion is exalted to such a high rank in pathology, we often hear certain articles of the *materia medica* mentioned as being liable to produce this effect. Thus, for example, cinchona, with many practitioners and writers, has acquired this character, and is often styled a congesting tonic. In my view, however, no article is capable of producing congestions, unless it is competent to increase the strength of the action of the heart, to such a degree as not only to occasion a preternatural determination of blood into the capillaries of every part, so as to leave the great vessels comparatively empty—or unless it is adequate to the production of so great atony or weakness in the coats of the bloodvessels of some part or organ, in comparison with other parts of the system, that, from mere want of resistance to the ordinary *vis a tergo*, an accumulation of blood takes place—or unless it has the power of weakening the strength of the action of the heart, to such a degree that it is no longer able to force the blood into the capillaries of the surface, in opposition to the ordinary atmospheric pressure. Now neither cinchona, nor any analogous article, has any such powers; and yet it is to these articles particularly, and to the tonics generally, that the property of producing congestion is mainly attributed. It is, in reality, in other classes of remedies, beside the tonics, that congesting articles must be sought; for it would be an absurdity to say that a tonic, or a stimulant, is both congesting and tonic or stimulant at one and the same time. It is true that tonics and excitants, if given during the existence of true phlogistic diathesis, might so increase that condition, as to produce congestion where it did not previously exist. But what practitioner, in his senses, would think of employing such articles in such a condition of the system? At all events, no tonic, if given in a healthy, or in an atonic state, is ever capable of producing a true phlogistic diathesis. We must therefore seek for congesting agents in the other classes of medicines. Narcotics, without doubt, when so managed as either to diminish the vital energies of the brain, or the strength of the action of the heart, produce congestion in the brain and other viscera; but, when so managed, and when of such a nature as to increase the strength of the action of the heart, they do not diminish the vital energies of the brain, nor produce congestion either in the head or elsewhere. It is among the reducing, or antiphlogistic remedies, that we must look for congesting agents; and, accordingly, the several processes and agents of this class of medicines are found to produce visceral congestion, precisely in the same proportion in which they produce a preternatural weakness of the action of the heart, or a preternatural weakness of the bloodvessels of any particular part or organ. Of the antiphlogistic or reducing processes or agents, bloodletting, and purging with the refrigerant salts, are the most powerful, and of course the most efficient in the production of congestion; but nitrate of potassa, tartrate of antimony, and what is commonly called dieting, i. e. starvation, if vigorously employed, are very far indeed from being inefficient in this respect.

WILLIAM TULLY, M.D.

New Haven, July 2d, 1832.

CHOLERA—EXAMINATION AFTER DEATH.

Post Mortem Examination of a Case of Supposed Spasmodic Cholera, with Remarks. By J. A. ALLEN, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

IN accordance with my suggestion, previously made, to DR. WRIGHT, of Whitehall, he has availed himself of an early opportunity of making a *post mortem* examination of a case of suspected spasmodic cholera. The patient was a child, two and a half years old, whose father was an inhabitant of that place—intemperate, resided in a poor, miserable hut, and died with symptoms of the Asiatic cholera seven days before. The father had been familiar with the emigrants who recently died at Forts Edward and Miller. The child, says Dr. W., had enjoyed good health, as the mother stated, till daylight on the morning of June 22d, when it was taken with “vomiting, purging, and cramps of the legs, stomach, &c.; discharges from the stomach and bowels, of a transparent jelly appearance; cold extremities, and sinking of the vital powers.” The vomiting ceased two hours before death, which occurred in about five hours from the attack.

Dr. W., on examination, found the stomach distended with a thin, turbid fluid, which was so confined that it gushed out, through the first aperture made in its coats, to the distance of a foot or two, and continued to flow several minutes. The quantity contained in the stomach was supposed to be about three pints. The duodenum was quite empty, and the upper portion of the small intestines contained a small quantity of muco-gelatinous matter, slightly colored; further down they were more loaded with a white matter, resembling the white of an egg. In the lower portion of the smaller intestines, there was an intus-susception, of about two inches in length. The large intestines were free from any appearance of disease, and had no contents. The coats of the alimentary tube exhibited no marks of disease, except a slight discoloration in those of the stomach, and of the portion of the canal next to the incarcerated part. Two common-sized worms were found in the bowels, and several small ones. The liver and spleen were in a state of congestion with blood. The gall bladder was filled with bile, and the duct leading from it impervious with apparently concreted bilious matter.

It is to be regretted that Dr. W. made no examination of the heart, large bloodvessels, the lungs, and brain. His exhibition, however, of the case is obviously sufficient to fix the specific character of the disease, while it evolves additional facts respecting the pathological character of the alarming epidemic cholera, of which this case was probably an instance. No blame, in short, should be attributed to Dr. W. because he did not examine more thoroughly; on the contrary, he is entitled to public gratitude for what he did do, since the suspicious nature of the complaint was such that he was obliged to make his examination alone, except in the presence of a solitary old matron protected by a huge bunch of tansey.

Had this case been an instance of simple intus-susception, its fatality would not have been so speedy. This affection of the bowels was

produced by the spastic action of the muscular coats of the alimentary tube. Analogies are mentioned in the Asiatic reports. Besides, while death from intus-susception rarely occurs within several days, in the present case it took place within five hours from the attack. Had the ailment been caused by the irritation of worms, such kind of effusions and ejection would not have been discovered. In short, the symptoms of the disease, its rapid fatality, and the appearance on the autoptical examination, were in perfect accordance with those cases of cholera which have been reported from India. Upon these morbid appearances, DR. JAMESON remarks—"In many, especially those who died early, the stomach and intestinal canal were found full of a whitish, turbid, dark or green-colored fluid, without the slightest mark of inflammation. The liver was congested, inflamed, and harder than usual, &c." The stomach and gall bladder have almost universally been found filled, and several of the vital organs gorged with blood.

In summing up the whole history of this epidemic, it is evident that a deadly sedative agent presses on the vital organs, especially the nervous, vascular, and glandular systems, suspending or deranging their functions. The suspension or derangement of the action of the nervous and muscular systems is shown by the impaired sensation, and inordinate and violent muscular contractions; that of the vascular by the subsidence of the pulse, and the fatal effusions and congestions usually found in some of the vital organs. This pulselessness, as it has been called, evinces an unequal expenditure, or a want of vital power. From this sinking of the vital energies, the complaint has been called "*Death-stroke*," or "*Mort de chien*." There is an augmented or morbid action of the secernents of the mucous system, while there is a suspension of the functions of the glandular and serous systems. This is proved by the increased quantities of ejections from the stomach and bowels, while the skin, bladder, &c. seem to have entirely lost their functions; and the same may be said of the *serous membranes*; for no particular morbid appearances have been found, says DR. SCOTT, in any of the cavities of the body which are lined with serous membranes, or in these membranes themselves. The cavities of the pleura, of the pericardium, and of the peritoneum, have almost uniformly been found in a natural state. Hence it appears that in spasmodic cholera the natural functions are all in turn disordered, but not invariably so; that the vital functions, especially of the heart and bloodvessels, are invariably affected, and consequently the functions of the lungs must suffer with that of the heart. The animal and sensorial functions, it seems, suffer least of all in this morbid struggle; for the mind, we are told, usually remains clear and unimpaired.

If the preceding view of this subject be correct—and that it is, we have abundant evidence—it is obvious that no one remedial agent, and, in fact, no one class of remedial agents, can be found adequate for its cure. There must be a simultaneous combination of active remediate measures, to insure any prospect of success in a violent attack. Upon the general course adopted with the most success in India, MR. CORBIN remarks to SIR GILBERT BLANE—"The outline of the treatment alluded to, is to administer twenty grains of calomel, and to wash it down with sixty drops of laudanum, and twenty drops of oil of peppermint in

two ounces of water ; to bleed freely in the early stage, and to support the warmth by external heat, the hot bath and hot friction, and internally by cordials."

The adaptation of the above outline of practice must be governed by general principles of medical science. No fixed method, it is evident, can be adopted. The science is not thus degradingly empirical. Cholera cases, like all others, require a particular adaptation of remedies, to meet the exigency of each individual case.

Middlebury, Vt., July 2d, 1832.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JULY 18, 1832.

THE CHOLERA.

In England and Scotland, the whole number of cases to the last date was 10,499 ; deaths, 3,941. At Liverpool, the cases are not numerous. In Ireland, they are diminishing. In Montreal, the number of new cases are few, but more malignant than heretofore—almost every one proving fatal. We extract the following from the Atlas, published in this city, as, if correct, being worthy of particular note :—

A Case of Cholera in Erie, Pa.—An aged woman died of Asiatic cholera, at Erie, on the 26th June. This case, we think, is full of instruction. She was an emigrant, who arrived at Quebec on the 2d June, and whose husband died of cholera on the passage. She made her way through the Canadas to Buffalo, where she took the steamboat, and was landed at Erie on the 22d. On the 23d, she washed the clothes of her deceased husband, and on the 25th was taken with cholera, of which she died on the 26th.

At Philadelphia, one case has been reported by the Board of Health. One at Newark, N. J. ; four at Kingston, N. Y. ; and four at New Haven, Ct.

At Albany, a river town, where it was expected the disease might be very rife, the number of cases is quite limited, and a few only have been said to exist in other and neighboring towns.

At New York, the report in our last was to the 8th instant. On the 8th, there were 42 cases and 21 deaths. On the 9th, 48 cases and 14 deaths. On the 10th, 66 cases and 19 deaths. On the 11th, 76 cases and 25 deaths. On the 12th, 71 cases and 26 deaths. On the 13th, 66 cases and 32 deaths. On the 14th, 86 cases and 44 deaths. Besides these, there were reported, at Bellevue Almshouse, situated directly in the Sound, and containing eighteen or twenty hundred inmates—57 cases and 14 deaths on the 9th ; 43 cases and 25 deaths on the 10th ; 58 cases

and 25 deaths on the 11th; 48 cases and 25 deaths on the 12th; 35 cases and 17 deaths on the 13th; 29 cases and 22 deaths on the 14th.

The Medical Committee, sent hence to examine the disease at New York, have made a report, which we give below. It will be remarked, as a prominent fact in this account, that the disease, as seen by the committee, is not attended by the extreme suffering usually supposed to attend it; and we also learn, from the committee, that the death by it is easy, compared with the usual modes in which that event is occasioned by other diseases.

To the Board of Health Commissioners of the City of Boston.

The Medical Deputation, appointed by the City of Boston to visit New York, for the purpose of making observations relative to the disease now prevailing in that place, respectfully

R E P O R T :

THAT, in the execution of their commission, they have diligently occupied the principal part of three days in that city, in inspecting the various receptacles of the sick, and in instituting such inquiries as they deemed important relating to the object of their mission. They have visited all the cholera hospitals, together with the Almshouse at Bellevue, and some of these institutions repeatedly; they have seen upwards of two hundred cholera patients, and witnessed several post mortem examinations.

They consider the New York disease to be the same cholera which has successively prevailed in Asia, Europe, and Canada. It is distinguished by most of the malignant symptoms which have been noted in other places, and which are already familiar to medical readers—such as the sudden development of the disease; the rapidity with which the patient is prostrated; the short course after which death takes place—a majority having died within twenty-four hours of the time of supposing themselves ill, and some in a less period; thus furnishing, during the stay at New York, an opportunity to observe both the beginning and end of a considerable number of cases. It is distinguished, also, by the suddenness and peculiar character of the alvine evacuations, which at length become flocculent and pearl-colored; by the thirst, and burning at the region of the stomach; by the coldness, dampness, and lividity of the skin, and its corrugation on the hands and feet; by the shrinking and peculiar expression of the countenance; by the sound of the voice, resembling a feeble wail; by the more or less spasmodic affection of the muscles; by the sinking and loss of the pulse for a long period before death, and by the clearness of the mind to the last.

But although some of these symptoms were strongly marked in every instance, yet in few were they all assembled; and in some, but those not the less malignant, the most striking symptoms were wanting. The spasmodic affections, though occurring at some periods of almost every case, were not so common, or so long continued, as to constitute a very leading feature. The evacuations were less profuse, and continued through a smaller portion of the disease, than was to have been anticipated. The blue or dark color of the skin was also less universal; and though seldom wanting in the hands and nails, yet many presented it no where else. Very few exhibited a striking darkness of the whole body; though in many, at the last stage, the face and extremities were of a dull slate color, resembling that of the hands of mechanics who work in the black dye. The tongue was not uniformly, nor even generally, cold; nor did the countenance, even at the approach of death, exhibit always the usual peculiarities of the disease.

Another deviation, which was noticed, from the common description, was the absence of any apparent marks of great suffering. The patient seemed generally quiet and indifferent, made but little complaint, and paid but little attention to the presence of strangers, or other external objects. In a room containing ten or a dozen patients, it was not common to see more than one or two at a time under the influence of any degree of spasm, and frequently a perfect stillness prevailed.

No evidence could be obtained that a specific contagion had any agency in the origin or propagation of this epidemic. Its history was like that of an indigenous disease, and the first cases are believed to have occurred among persons confined in the Almshouse and Penitentiary. In the city, the first cases were scattered, isolated, and frequently remote from each other.

In regard to treatment, the delegation believe that more depends upon preventive, than upon remedial means. A large portion of malignant cases of cholera, among which are often found the *earliest* cases which occur in cities, may be regarded as for the most part incurable. This apparently

arises, not wholly from the nature of the disease, but, in perhaps a greater degree, from the character of the subjects upon whom it most readily alights. These are the degraded and suffering poor, the superannuated, the intemperate, the debauched—persons frequently whose lease of life is finished or forfeited, and in whom cholera only anticipates, by a few weeks or months, the inevitable course of nature. It would be unreasonable to expect that such cases can be within the control of remedial art.

On the other hand, it is our belief that even during the epidemic presence of the disease, in places generally salubrious, there is little cause for apprehension among the healthy, the cheerful, the active, the discreet, and temperate—those who fearlessly pursue their respective paths of duty, and occupy their minds with other subjects than the cholera. Among such persons, we have reason to believe that the attacks of the disease are comparatively rare, or, if they do occur, are mild, giving timely notice, by premonitory symptoms, which are not difficult to be removed by medical aid. It is not unreasonable to suppose that certain national temperaments, among which we may happily class that of our own population, predispose to immunity from the disease. The English, under parallel circumstances, have suffered less than the French, both in Europe and in Canada.

The assumption which has been frequently made, that the disease differently affects classes in different walks of life, is true only in reference to habits, and not to condition. The laboring part of the community, when temperate and prudent in their modes of living, are as likely as any who could be named to escape the disease. The numerous operative classes, the day laborers, also domestics who reside in clean and comfortable houses, may be expected, certainly as much as any class whatever, to enjoy health, under the ordinary precautions of temperance and regularity of life.

The result of their observations, made in the city of New York, leads this delegation to feel the urgent importance of completing in this city the preparatory arrangements which have been so wisely begun. The disease, perhaps, may not visit our healthy region at all; nevertheless, if it does come, it should not find us unprepared. The provisional hospitals, which have already been engaged and organised, furnish honorable testimonials to the wisdom of the health commissioners. We would beg leave respectfully to urge the importance of engaging, at an early period, a competent number of nurses, carriers, and attendants, both male and female, and particularly that these should be persons of good character and temperate habits, for reasons which will be obvious to the board.

It is expedient that a supply of fuel should be deposited in each of the hospitals, with fire places or open stoves in most of the rooms. During the cold days of this week, the patients in the New York hospitals were thought to suffer by the reduced temperature of the atmosphere—the disease being one in which external warmth is difficult to be maintained. To exclude the cold air, the attendants had recourse, in many cases, to closing the windows and doors of the sick rooms, thus producing a confined and concentrated atmosphere, which, if long continued, must tend to aggravate, as well as to multiply the disease. It would be better, in such cases, to keep up fires sufficient for the necessities of the patients, while the external air might be freely admitted, to accomplish the necessary ventilation.

Litters for the conveyance of the sick should be provided and kept at all the hospitals. These may be conveniently made, in the form of a wide hand-barrow, with a sacking and mattress, the top covered with a cloth awning. The men who are to carry them should be in attendance at the hospitals.

The provisions necessary for the complete and early organization of the cholera hospitals will involve a considerable, and perhaps an unnecessary expense. They are such, however, as must appear proper to every wise man in a reflecting community. Should the event prove that they have been altogether superfluous, there will be sufficient reason devoutly to thank Providence that they are so.

Boston, July 13, 1832.

JACOB BIGELOW,
JOHN WARE,
JOSHUA B. FLINT.

In this city, every proper preparation has been made by the authorities for the reception of the disease. Three provisionary hospitals have been fitted up; one at the west part of the city, with the attendance of Drs. Lewis, Stevenson, Fisher, and Dyer; one at the north, with Drs. Ware, M'Kean, Choate, and Thompson; and one on Fort Hill, with Drs. Adams, Homans, Davis, and Davenport. Two or three others are in contemplation. Every accommodation is provided at the hospitals, for such as may be taken sick of the disease without proper conveniences at their own houses, and medical assistance will be at hand at any hour

of the day or night. No instance, we apprehend, has been presented, in any place the disease has threatened, of a more thorough or better organised system of preparation, than that now exhibited in this city. Adding to this the general cleanliness of every private and public place, and our elevated and healthy situation, we have every reason to expect that the disease, if it should appear among us, will be limited in its fatality, and divested of many of its horrors.

The 4 cases of cholera at New Haven were in the same family. Mrs. Northup and her son were first attacked. They had come from New York, where they resided in a family in which two persons had died of cholera. Shortly after, Mr. John Jones and wife, the father and mother of Mrs. Northup, and both intemperate, were seized with the same disease. No other cases have appeared at New Haven. We have more and more reason to believe that the view we formerly took, of the plurality of causes of this disease, will be found to be correct.

Effect of Cholera on the Fœtus in Utero.—The London Medical Gazette states that a patient, far advanced in pregnancy, was carried into the cholera hospital in Dublin, and, by a stethoscopic examination, it was ascertained that the child was alive. The next day the woman was dying, and, from the cessation of the fœtal pulsation, it was judged that the child was already dead. In another cholera patient, also in the same hospital, it was ascertained that the fœtus died before the mother.

Whole number of deaths in Boston for the week ending July 14, 24. Males, 12—Females, 12.
Of infantile, 4—marasmus, 2—typhus fever, 2—consumption, 3—scarlet fever, 1—inflammation of the lungs, 1—measles, 3—unknown, 2—convulsions, 2—bleeding at the lungs, 1—from a wound, 1—dropsy, 1—stoppage in the throat, 1.

ADVERTISEMENTS.

DENTISTS' FINE GOLD FOIL.

THIS very superior Article, manufactured by MARCUS BULL, Philadelphia, is kept constantly for Sale, by the Subscriber, at the Manufacturer's Prices. For the excellence of this Foil, reference may be made to DR. J. F. FLAGG, DR. N. C. KEEP, and DR. HARWOOD.

July 11.

NATHAN JARVIS, 188 Washington Street.

JUST PUBLISHED, at the Office of the Boston Medical and Surgical Journal, "A RATIONAL VIEW OF THE SPASMODIC CHOLERA, chiefly with regard to the Best Means of Preventing it. By a Physician." The purpose of the writer has been to embody, in a plain, practical form, all the important facts and suggestions, in regard to the prevention of Cholera, which have been developed in its march through other countries, and in its progress thus far in our own. These have been so condensed as to form a manual which, from its cheapness, may be within the reach of those to whom, on account of their condition and circumstances, it is most necessary.—Price; 12 1-2 cents.

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INJECTION OF SALINE SOLUTIONS INTO THE VEINS.

*Injection of Saline Solutions into the Veins, adopted with success in
Malignant Cholera.*

THE practice of injecting saline solutions into the veins, as a dernier resort in cases of cholera, was recommended by the London Medical Gazette, and we place below the record of the only known cases in which this practice has been adopted.

Sir,—I conceive it to be my duty to let you know, for the information of the Central Board of Health, that the great desideratum of restoring the natural current in the veins and arteries, of improving the color of the blood, and recovering the functions of the lungs, in cholera asphyxia, may be accomplished by injecting a weak saline solution into the veins of the patient. To Dr. Thomas Latta, of this place, is due the merit of first having recourse to this practice. He has tried it in six cases, three of which I have seen, and assisted to treat. The most wonderful and satisfactory effect is the immediate consequence of the injection. To produce the effect referred to, a large quantity must be injected—from *five to ten pounds* in an adult—and repeated at longer or shorter intervals, as the state of the pulse, and other symptoms, may indicate. Whenever the pulse fails, more fluid ought to be thrown in, to produce an effect upon it, without regard to quantity. In one of the cases I have referred to, 120 ounces were injected at once, and repeated to the amount of 330 ounces in twelve hours. In another, 376 ounces were thrown into the veins between Sunday, at 11 o'clock, A. M., and this day (Tuesday) at 4 P. M.; that is, in the course of 53 hours, upwards of 31 pounds!

The solution that was used consisted of two drachms of muriate, and two scruples of carbonate, of soda, to sixty ounces of water. It was at the temperature of 108 or 110 degrees.

The apparatus employed in injecting was merely one of Reid's common syringes (the fluid being put into a vessel rather deep and narrow), with a small pipe fitted, that it might easily be introduced into an incision in the veins of the usual size that is made in bleeding. It may, however, be well to keep in mind, that, in the event of the operation being frequently repeated, it may be advisable to inject by different veins.

I forbear at present to enter further into the particulars ; nor have we had sufficient experience to speak decisively on the subject. I may, however, mention, that the idea of having recourse to this remedy in cholera, occurred to Dr. Latta, from being convinced (which I am also) that the evacuations upwards and downwards are in reality the serum of the blood ; that it is the duty of the physician to replace it, as speedily as possible, by injecting a fluid, as similar to the serum as can be formed artificially, directly into the veins, which has been done here with wonderful, and, so far as we can yet judge, excellent effect. An immediate return of the pulse, an improvement in the respiration and in the voice, an evolution of heat, an improvement in the appearance of the patient, with a feeling of comfort, are the immediate effects. The quantity necessary to be injected will probably be found to depend upon the quantity of serum lost—the object of the practice being to place the patient in nearly his ordinary state, as to the quantity of blood circulating in the vessels.—I have, &c.

(Signed) ROBERT LEWINS, M.D.

To W. MACLEAN, Esq.,

Secretary to the Central Board of Health.

Sir,—I did myself the honor to address a letter to you lately, on the effects of injecting a saline solution into the veins of a patient laboring under cholera. We have not frequent opportunities of trying this, which I denominate, admirable remedy, as the disease is decidedly less frequent here ; but I have seen it employed in two other cases, in the course of the last two days, with the same excellent effect. Sixty ounces are generally thrown in at once, and repeated at the end of three or four hours. In a case to-day, where I saw fifty-eight ounces injected (being the third time of performing the operation), the patient's pulse, at the commencement, was 180, very small, and very feeble. She was excessively restless, with a feeling of great weakness and tormenting thirst. Before twelve ounces were injected, the pulse began to improve ; it became fuller and slower, and it continued to improve until, after 58 ounces had been injected, it was down to 110. Before I left the patient (a woman) her condition was altogether amazingly amended. There was a fine glow and a slight perspiration on her face ; the veins on the back of her head were well filled ; the restlessness was removed, the feeling of excessive weakness gone, and the thirst ceased. The pulse was under 100, free, full, and soft ! Verily, sir, this is an astonishing method of medication, and I predict will lead to wonderful changes and improvements in the practice of medicine. I have addressed you upon the subject, as the organ, from your high official station, of disseminating a knowledge of the extraordinary facts referred to. It will, of course, give me great pleasure to enter further into particulars upon any particular point on which you may require information, in reference to the cases that have come under my observation.—I have, &c.

(Signed) ROBERT LEWINS, M.D.

To W. MACLEAN, Esq.,

Secretary to the Central Board of Health.

In the hands of a man of ordinary dexterity, the common injecting apparatus alluded to in my last will be found to answer the purpose perfectly well ; but if the practice I recommend is, as I hope it will be, generally adopted, it will, I conceive, be expedient to advise that a regular and perfect transfusion apparatus be used ; at all events, to warn those who inject to beware of allowing air to get into the vein. The tubes, of course, must be filled with fluid, as well as the pipe in the vein, before commencing, and considerably more fluid than it is intended to use ought to be in the vessel from which it is pumped. R. L.

LETTER ON THE CHOLERA.

Addressed to any Medical Gentleman residing where the Cholera is or has been prevailing.

[Communicated for the Boston Medical and Surgical Journal.]

SIR,—Englishmen's wit comes afterwards : I cannot think of everything at once, and shall therefore be troubling you frequently with letters, so long as the subject of cholera commands an interest, making queries upon matters which had previously slipped my mind. *Have you ever met with a case in which opium, alcohol, &c. were fairly tried, according to the principles to be found in the writings of Page, North, and myself, as we use it in sinking typhus, and in other acute asthenic diseases of the lowest kind ?* By this I mean, employing at first opium, assisted by other exciting articles and external adjuvants, in so energetic a manner as to control all the urgent symptoms, and then so managing the opium as to keep the system above the disease, and also above its own secondary effects. I know this to be the true way of managing common asthenic cholera, colic, dysentery, and other similar atonic acute affections of the alimentary canal, and of the adjoining viscera. Is malignant cholera an exception ? If so, what are the reasons ? Does this disease come under my class of cases in which medicines sometimes produce all their specific operative effects without affording any real, permanent, remedial effect ? If this is the fact, I can readily see that it must necessarily be very fatal, under the ablest treatment. The cases which I have seen detailed *do not appear* to be of this kind ; for almost every one of them—those actually in *articulo mortis* excepted—it seems to me (especially such as continue from six to eighteen hours after medical advice is obtained), *ought to live two or three days longer*, and many of them to recover. No one can tell whether a bad case will not wear out, and finally fail on the fifth or seventh day, or some other critical period ; but cannot something like reaction be effected and sustained, for a time at least, by skill and art ? If it is a fact, that from a half to a third of all the cases of cholera are absolutely fatal, it is by far the most malignant of all epidemics upon the records of medicine. As yet, I cannot believe this to be the case.

If I must theorise, I should say that vitality is a secretion, and that this secretion is suddenly suspended in cholera. A great part of it is extinguished on the first attack, and the little remaining is wasting as fast

as possible ; so that what little there is of it acts very feebly, and only partially. Now, if this is a true hypothesis, our indications are to call the remaining vitality into immediate action, to distribute it equally, and to produce a new secretion sufficient to meet the waste, and to restore the regular state of the system. In some low diseases, we seem pretty readily to call all the remaining vitality, or sensorial power, into action, and distribute it tolerably well, keeping it in play till we have *used it all up*, without producing any new secretion. These are the cases in which the patient sinks at the crisis. In the bad cases of cholera, as usually managed, there is a constant running down ; nothing stops the waste. But is it true that alcohol does not excite, and opium does not support ? I should judge that opium is only given to allay pain, spasms, and vomiting, and that most practitioners are ignorant of its supporting power ; or that they so manage as to stupify and debilitate, by not following it in regular successive doses, thus allowing its secondary effects to supervene. Do the patients of cholera die comatose ? Is the morbidly clear intellect, which we sometimes see in fevers, a general thing in cholera ? Are the nerves arising from the spinal marrow affected, rather than those from the brain ? The latter is usually the fact in sinking typhus. How great a proportion of those who recover, go through a typhus ? And is this typhus attended with daily *gastric sinking* ? Was the disease in Montreal always preceded by diarrhœa ? If so, was it proper to take a cathartic, as many recommend, during this diarrhœa ? If this is the fact, and purging under the predisposition is a preventive, this circumstance alone is a prominent distinction between cholera and our epidemics. Ill-timed cathartics were the exciting causes of a large proportion of our bad cases. Indeed, many were at first attacked with a factitious diarrhœa, or cholera, which brought on the gastric sinking. Even where the bowels evidently required evacuation, *we were always obliged to stop it after the first or second motion*, or the most sinking symptoms would supervene. The exciting of the peristaltic motion of the intestines by the mildest laxatives, before any evacuation took place, often produced gastric sinking ; and the evacuation seemed not to reduce so much by its *quantity*, as by the peculiar *exhausting action* which was produced. Three fourths of the fatal cases which I have seen, in sinking typhus, were evidently the victims of improper purging, or of diarrhœa not speedily checked.

By a letter from an intelligent apothecary in New York, received this morning, mentioning cases that he had seen and known, I am confirmed in the opinion, that nothing efficient is usually done in the stage of collapse. With my views, if I should do so little, I should reproach myself. There appears to be an absolute ignorance of all the low, sinking diseases of our own country, and an unaccountable indifference to acquiring any knowledge of them, among most of the physicians where cholera prevails. It is certain that cold typhoid diseases have never prevailed to any extent in our large cities ; the physicians consequently have no personal experience in them, and therefore must acquire their knowledge of them, if in any way, from the writers in the parts of the country where such epidemics have appeared.

I have no doubt that much discrimination is demanded, and that

difference in age, temperament, severity, stage of disease, preponderance of particular symptoms, prevalence of irritability or of torpor, &c., demand very considerable variation in practice. In some of our cases, moist heat—in others dry heat, was preferable; and in some no extra warmth was demanded. In some—the irritable, large doses of opium, at comparatively long intervals, as two, three, or four hours, were best, and but little alcohol, essential oils, capsicum, and aromatics, were preferable; and, in these cases, but few blisters and rubefacients were admissible. In the torpid cases, every external and internal irritant was demanded, and comparatively small doses of opium were needed, while the stomach might be kept filled with alcohol. Blisters, *successively*, inside the thighs, were the surest remedy for retention of urine from torpor, or for a defective secretion of it. In a few torpid cases, *strong* tincture of cantharides was admissible, in drachm doses. To make blisters or sinapisms sure to take hold, their surface which touches the skin ought to be freely moistened with oil of turpentine; but as soon as they become excessively painful, the turpentine application should be removed. This manner of blistering by turpentine is very effectual in removing coma. I suspect that strong tincture of cantharides, either made of alcohol or of the best vinegar, would be proper to be applied to the spine, and perhaps over the whole head, in the collapse of cholera.

I am sensible that I make use of strong language, because, in common with all who are familiar with sinking typhus, I feel that the usual treatment of cholera, both in England and America, would prove inert, and absolutely ineffectual, in many of the severe cases of our sinking epidemics, which we have been in the habit of managing with ease and success.—Yours in respect and friendship,

THOMAS MINER.

Middletown, Con., July 11, 1832.

DR. BRONSON'S ACCOUNT OF THE CHOLERA IN ALBANY.

Albany, July 12th, 1832.

To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—The epidemic cholera has appeared among us within the last few days. The first cases we had of it were on the morning of the 3d instant. At that time, two persons of intemperate habits were taken down with the disease in its worst form, which proved fatal, in each instance, within the course of a few hours. On the 4th, there was another case, and on the 5th two others. All these were of a very decided character. They occurred in distant and unconnected parts of the city, and had no intercourse with each other. They are universally believed to have been of indigenous origin. Every effort to trace them to contagion has entirely failed.

Though I am willing to admit all the *facts* on the side of the anti-contagionists, I am still a decided advocate for the doctrine of *contingent contagion*, as maintained by J. Johnson and others of the present day. I am firmly of the opinion, that cholera may be contagious under

particular circumstances. I am led to think so not only from what has been noticed here, but from what was witnessed on a much larger scale in Montreal and the other seats of cholera in the north.* The truth seems to be this:—the disease is contagious (the terms contagion and infection are used as synonyms) in crowded, unventilated dwellings, amid filth, intemperance, and poverty, but rarely or never in cleanly, airy apartments, the inhabitants of which are regular and temperate, well fed, and well clothed. Let a cholera patient be thrown into a tenement of the former description, and one half of the wretches about him will be almost sure to sicken within the space of three days; while a habitation at a distance, under precisely the same circumstances, as it regards its location and internal economy, and the habits of those who live in it, will perhaps for the present escape. Numerous instances might be referred to, exactly in point. The manner in which the conclusion derived from them is commonly evaded, is extremely disingenuous, and would be instantly scouted at in any other branch of physical science.

Some weeks before the appearance of cholera among us, there was almost an entire suspension of all other diseases. The state of things resembled the calm that precedes the storm. It was evident that the epidemic constitution was about changing. The complaints that were noticed were strangely anomalous and irregular. They often blended, and produced hybrids, or a more compound disease. Influenza, measles, hooping cough, and scarlet fever (the three former of which were very rife and severe here during the winter), frequently seemed to unite in the same person, producing a disease of such an equivocal character, that it was difficult to tell which element in its composition preponderated. Sometimes a number of cases would occur in a single family, in immediate succession—one of which, had it been an isolated case, would have been called measles; another, scarlet fever; and another, perhaps, influenza, or a kind of sub-pneumonia, &c. Intermittents (which were common) put on unusual appearances; they were complicated, irregular, marked. At last, about three or four weeks before the cholera appeared, complaints began to assume a diarrhœal form, showing distinctly the commencement of a new epidemic constitution. As these became more frequent, and more marked in their character, other diseases gradually disappeared, until they were all lost in the prevailing disorder. They were at this time easily managed, and very rarely assumed a serious aspect. They affected the public health so triflingly, that it was considered a time of unusual freedom from sickness. Physicians had little or nothing to do. The smallness of the number of deaths in our city was almost unexampled.

The commingling of diseases above referred to, producing anomalies of almost every description, as if opposite and contending forces had met, and each struggled for the mastery, was observed during the first part of the present year, in the places which I visited at the north, where cholera has prevailed. Bowel complaints, too, were the immediate precursors of the epidemic, showing, first, the preponderance, and

* On the breaking out of the cholera in Canada, the writer was despatched, to investigate its nature and treatment, by a number of private gentlemen in Albany.

in a short time the complete formation, of the present constitution. Notwithstanding these intestinal disorders, it was a time of general freedom from sickness requiring professional attendance. This fact was so extraordinary in some places, as to excite the surprise of medical men. In St. John's, where cholera raged to a considerable extent, the like had never before been witnessed.—Very respectfully yours,

HENRY BRONSON.

CHOLERA AT QUEBEC.

THE following is part of a letter to the editor of this Journal, from one of the most distinguished physicians in Quebec, and one whose situation in the health department gave him ample opportunities to become intimately acquainted with all the circumstances attending the disease as it prevailed in Canada. We will only add, that the writer is the best possible authority on the subject, and his statements may be relied on as unquestionable. Any further information of importance, from the same quarter, will be promptly laid before the reader.

Quebec, July 9th, 1832.

MY DEAR SIR,—It was my intention to have sent you a copy of the only report (which was drawn up at the request of Drs. Rhinelander and De Kay, who visited Quebec), by Dr. Pillsbury, of Lowell (I think), near Boston ; but his stay was short, and I was prevented from so doing by a press of business. He did, however, obtain some information, which, at my request, he promised to communicate to you. The following are the facts of all that is really yet known of the introduction of the cholera among us. A report was sent from Grosse Island, stating their fear that cholera had existed on board the Carricks during her passage. I was in consequence requested to leave town, visit the vessel, and report, which I did :—that she had left Dublin in April, and that 39 persons had died on board, the first four weeks of her passage, with a disease, if not cholera, much resembling it, and that the last death was on the 8th May, nearly one month before her arrival. The vessel was ordered to perform strict quarantine, the passengers to be landed, washed and cleaned, and the vessel purified ; all which was done. I returned on the 6th June, and on the 8th a doubtful case was reported to me by Dr. Perreault, the then resident physician (who has since fallen a victim to the disease). He had taken notes, but they are not forthcoming. Report states this man to have been about town some time. The second case (if the first be admitted) was on the afternoon of the 9th—taken ill on a wharf while working, sent to the hospital, and died. Both these individuals lodged in Champlain Street. The same evening, four other cases were reported, sent to the hospital, and died. It was ascertained that five out of the seven first cases were return passengers from on board the Voyageur steam boat, which boat had got passengers from on board of two or three different emigrant vessels in the river : bad weather coming on, the boat had to return* and land about 200, they finding

* On the evening of the 7th.

lodgings principally in that part of the town where the disease broke out and committed its greatest ravages. I must say the first case was considered by Dr. P. as a severe case of the cholera of the country, and the Voyageur proceeded to Montreal, not aware of leaving cholera behind her in Quebec. Before her arrival at Montreal, one case died on board, and a second very ill; and the two first cases which appeared on shore in Montreal were, I am credibly informed, from on board the boat. Indeed, the captain verily believes he received it from on board a vessel (which, for reasons, I will not name at present). The facts and history of the first twenty cases we have commenced collecting, and if anything transpires worth sending you, I shall not forget it. *All things considered, I am satisfied the disease is contagious*; at what period, or under what circumstances, I am not prepared to say.

In support of my ideas of contagion, I will quote the following facts: as attending physician at the time, I recommended to the religious ladies of the Quebec Hotel Dieu Convent, certain precautionary measures, like exclusion of visitors, strangers, &c., which were adopted, and there was *no disease* there. The military alluded to in the report are still free from disease; whereas, in Montreal, where there is no citadel or barracks, and soldiers could not be confined, their loss was as great, in proportion, as that of the inhabitants. They were soon sent to an island near Montreal, and have had little or no sickness since. At Beauport, a populous village which crosses the river St. Charles, cases occurred almost as soon as in town. The first four were masons, who had been working in the Cul-de-Sac, in St. Paul's Street, during the Friday and Saturday, and on Sunday, while at church, one, the first, was attacked; on Monday, three others, and in less than a week, upwards of 40. Mr. Racey, formerly of New York, and who had just returned from Europe, embarked on board a schooner, to go down the river to his family at Matan, about seventy leagues below Quebec. He was taken ill the evening before his arrival at home, and the third day after his departure from town. He died a few hours after he reached his family. In less than three days from his own death, two of his children died. It was unknown at Matan that the cholera existed at Quebec, when Mr. R. arrived. I must close here at present; when a little more at leisure, I will trouble you again on this subject.—Yours, &c.

The following copy of a report, drawn up for the use of the New York Medical Delegation, accompanied the above letter.

BOARD OF HEALTH, Quebec, June 25th, 1832.

The undersigned, appointed by the Board of Health to investigate and report upon the introduction and treatment of the cholera, now existing in this country, have agreed to the following Report, which they respectfully submit.

The disease, on its first appearance in this city, exhibited all the characters of that commonly called the Asiatic or Spasmodic Cholera. It commenced about the 8th instant, in boarding houses and taverns in the Cul-de-Sac—a low, uncleanly, and ill-ventilated part of the city—

crowded with emigrants of the lowest description, with sailors and other persons of irregular habits.

About the fourth day of the disease (the 12th), it showed itself in the more elevated parts of the city, among the wealthier classes of society, and persons of sober and regular habits, who could have had but little, if any, direct communication with the people among whom the disease had first appeared.

About the same date (the 12th), the disease was observed in various parts of the city, and in several neighboring parishes, some few miles distant, having a constant intercourse with it.

The cases continued to increase in number until about the 16th or 18th (being the 8th or 10th day of the disease), when they began to subside, both in number and in violence—the disease still prevailing more extensively in the ill-ventilated parts of the city above mentioned. About the period of its greatest prevalence (the 8th or 10th day of the disease), the number of cases was estimated to be between 250 and 300, in the course of 24 hours.

The undersigned have not as yet been able to discover that any case of cholera has been landed from any vessel in the harbor, before, nor until several days after, its first appearance in the city.

They deem it necessary to add, that some parishes in the neighborhood of Quebec have continued free from the disease until lately, and that no case appears to have yet occurred at Three Rivers, an intermediate and populous town between Montreal and Quebec, where the steamboats with emigrants, from Quebec, generally arrive.

Since the appearance of this malady, only two soldiers have been attacked in Quebec, and those while on duty—the rest being closely confined to their quarters.

The symptoms were the most violent at the commencement, and continued so until about the 16th or 18th, when they began to mitigate in severity, as the cases diminished in number.

In the treatment of this disease, recourse has been had to almost every remedy favorably reported of by European practitioners, and they all have had, for a time, their advocates—some preferring stimulants, others opiates, while others satisfied themselves with an intermediate plan of treatment—the whole of the medical practitioners with one accord agreeing, however, in the application of external stimulants, such as oil of turpentine, mustard, warm applications and frictions; calomel and opium have been much relied on by many. Practitioners speak with confidence of bloodletting at the onset of the disease, and before an approach to collapse has been recognised. Sweating has been much practised, and decidedly with advantage, when it is not allowed to run into that state of collapse indicated by a pulseless wrist, dejected countenance, blue extremities, tongue and breath cold, and a sunken voice, feeling as if it passed through the ears.

Some instances have been noticed, and also observed by our intelligent clergy, as well as by ourselves, where, in some mild forms of the disease, nature effected a cure by copious perspiration, encouraged by warm drinks and extra clothing.

The undersigned, with one accord, have found purgatives injurious, if

used before perspiration or bloodletting had been resorted to, to allay the irritable state of the stomach and bowels ; and then only the milder purgatives should be employed, such as calomel or blue pills, guarded with minute doses of opium, and carried off, after a few hours, with rhubarb, combined with soda and carbonate of ammonia.

Signed, Jos. Morrin, Health Commissioner ; W. A. Hall, Resident Physician ; F. X. Tessier, Health Officer ; Wm. Lyons, Superintendent of the Emigrant Hospital.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JULY 25, 1832.

ACTION OF EMETICS.

[Continued from p. 290.]

9. HAVING heretofore considered, at some length, the therapeutic effects of emetics, it remains to make a few remarks on those which cause them, under certain circumstances, to be regarded with apprehension. Of these, the first is the increased activity which they are supposed to produce in the cerebral circulation. That, under the operation of emetics, symptoms occur of powerful determination of blood to the head, is beyond all question. The vessels of the face become distended, and a flush is produced, which cannot escape the attention of the most cursory observer. Whether the state of the cerebral vessels correspond to this, and whether, under the influence of an emetic, congestion of these vessels is produced, is rather more doubtful. The invariable tendency of vomiting to relieve headache, when this symptom is present, is one argument at least against such a supposition ; for admitting that, in the majority of these cases, this symptom indicates gastric disorder, yet it can scarce be questioned, that the pathologic state of the train which accompanies it is that of increased cerebral circulation ; and, were it the direct and constant tendency of vomiting to augment the vascular action in this organ, we might expect to find the symptom in question rather aggravated than relieved. As it is, the violent muscular action, which accompanies the process, sometimes tends directly to produce this effect ; but this is so immediately counteracted by the opposite and more permanent influence, that it is not ordinarily taken into consideration in forming an estimate of the effect of the remedy. The considerations above stated may at least tend to modify the apprehension which is commonly entertained of administering emetics to those who, from plethora or other causes, appear to have a tendency to affections of the brain. We are satisfied that experience does not justify this apprehension. It may indeed have happened, that, in subjects peculiarly predisposed to

apoplexy, this affection may have followed on the use of emetics. But such instances certainly must be very rare. We do not at this moment recal a single instance which has come to our knowledge, either in our private intercourse with practitioners, or through the medium of the public journals; and this, in regard to a remedy in such daily and constant employment, goes as far as negative proof is capable toward actual demonstration. With respect to the utility of giving emetics in apoplexy, the question must be determined on general principles, and with reference to the result, cause, and other circumstances, of a given case: but we hold it to be a clear inference, from the reasoning above adopted, that, where apoplexy arises from excess, and is connected with overloaded stomach, the fear of increasing the congestion would be a very mistaken reason for neglecting a remedy capable of removing the cause; and we have our doubts whether, under these circumstances, the employment of bloodletting, as a measure of precaution, be necessary or expedient.

10. The last effect of emetics which we shall notice, is their reputed tendency to produce abortion. This we apprehend, like the last, to have been on the whole somewhat overrated. No doubt severe vomiting, by the disturbance which it occasions in the system, will occasionally interrupt the function of gestation; and this is equally true, if not more so, of the operation of severe and drastic purgatives. It is beyond question, too, that both these remedies are frequently resorted to for the very purpose of procuring this effect, and that, too, under circumstances in which any remedy, that presented a probability of success, would be likely to receive a full and fair trial. Yet we do not find that the means thus obviously furnished, and so conveniently within the reach of all disposed to employ it, is often resorted to with success; though facts of this kind, if of frequent occurrence, would hardly fail to come to the knowledge of the profession. Further, it is to be remembered how often severe vomiting is a symptom of the puerperal state at its earlier stages, and that instances have been known where this symptom has followed obstinately through a great part of its course; sometimes, indeed, from the distress which it occasioned, making it necessary to produce abortion by other means. A still more striking argument may be gathered from the fact, that, of the 10,000 emigrants who annually cross the ocean to swell the population of our happy country, one twentieth at least are pregnant women; and if vomiting in any form could, with tolerable certainty, produce the effect, we think it must be that which would occur among such subjects, crowded together in such untoward circumstances. The fact, however, is, that this event is by no means frequent, and the hazard of its occurrence forms but a small portion of the terrors with which the mighty deep is armed, to those placed in this situation.

The excess of apprehension, to which we have alluded, might be regarded as harmless, or even useful, if it induced simply to caution in

regard to excess in diet, and other causes calculated to induce spontaneous vomiting. But, if we mistake not, both practitioners and their patients are too often induced to forego the benefits to be derived from artificial vomiting, in cases in which it is evidently indicated, from the fear of interrupting gestation. That this apprehension is often unfounded, experience itself sufficiently shows; since it frequently happens, that, after all other remedies have been tried without success, the emetic is finally resorted to with the happiest effects. There is, in fact, a certain state of the system, to which we have already alluded, and which, in many constitutions, is of periodical recurrence, which can only be relieved by the exhibition of this remedy; and, where the period recurs during the period of gestation, we have only the choice between a protracted and tedious employment of feeble remedies, until the process has terminated or the disease has exhausted itself—or, on the other hand, the exhibition of the same remedy which, in the ordinary state of the system, is found to be effectual. The considerations which weigh, in such a case, are numerous, and the decision is frequently a matter of no small difficulty. Much will depend on the intensity of the symptoms, and much on the degree of advancement of the pregnancy; for, if this state has nearly terminated, it may perhaps be better to endure the evil than to incur the hazard, however small, attendant on the remedy.

CHOLERA IN GLASGOW.

AN interesting account of the disease, as it appeared in Glasgow, is given by DR. AUCHINLOSS, of the Tuon's Hospital. The disease commenced on the 22d February, and continued to prevail till the 9th of March, during which time, 62 patients were attacked, and 2 subsequently. The number of deaths was forty. The mode of introduction, as usual, was a subject of debate. Dr. A. is induced to attribute it to the vicinity of a dunghill, or to the presence of dampness in some of the cellars, owing to occasional inundations from the river. Of the cases, 5 were nurses who attended on the sick, and of these 4 died. The symptoms of the disease were much the same as have been already described. Among remedies, the following stimulating draught was much used:—

Brandy, 3ss.; Tinct. Caps., gtt. v.; Tinct. Zing., 3i.; Spi. Eth. Nit., 3i.; Ether Sulph., gtt. x.; Aquæ Cal., 3i. M.

In the stage of vomiting and purging, some benefit was derived from mustard poultices. Where these failed, the supercarbonate of soda was sometimes given with advantage. Dr. A. was not satisfied of the utility of bleeding. Good effects were occasionally produced by the application of a plate of copper, heated in boiling water, to the surface of the abdomen. In this way, vesication was sometimes instantly produced. Frictions with hartshorn and other stimulants were found useful.

On dissection, the peritoneal surface of the bowels was found vascular, with more or less tenacious matter on the surface, and different folds of small intestines adhering together. Mucous surface of the latter generally natural, but in one or two cases distinctly inflamed, especially toward inferior extremity. Large intestines usually contracted, especially colon; in many cases empty, and sometimes containing feculent matter, and, at other times, masses of white, cloudy matter, floating in a large quantity of pale fluid. Stomach usually distended, containing dark greenish matter; mucous surface red and softened—sometimes distinctly inflamed. Liver generally natural, or slightly enlarged. Gall bladder, in every instance, full of dark-colored viscid bile.

Some cases are contained in the same Journal of the use of the strychnine in cholera. This remedy was first employed in Germany, under the idea that the seat of the disease was the spinal marrow. The result of the practice in Glasgow was not very decisive. It was chiefly given in those cases which were considered the very worst—those in which the symptoms of collapse were the most perfect, and where every other mode of treatment was considered totally hopeless. The patients who took the medicine under these circumstances lived longer than the others who did not. The doses given were about a quarter of a grain each, repeated at intervals of about an hour. There is, then, some reason to suppose, that, in milder cases, the administering of the medicine in large doses might have the effect of removing the symptoms of collapse, by acting specifically on the spinal nerves, the defective function of which may be regarded as the great cause of the suspended circulation, and the other symptoms of collapse.

THE CHOLERA.

Our pages this day will be found enriched by authentic and interesting details on the subject that engrosses the attention of the faculty. In the report, published in connection with the letter from Quebec, it will be noticed that allusion is made to the situation and immunity of a village called *Trois Rivières*, or Three Rivers. An inhabitant and magistrate of that place has transmitted to the Mayor and Aldermen of this City, an account of the method adopted for the purpose of preventing the ravages of the disease, which consists in the burning of brimstone, the internal use of sulphur—a drachm in a little molasses—three times a week, and the wearing the same article about the person.

We would remark on the above, that, so far as the burning of sulphur, under such circumstances, tends to destroy infection, but one opinion can exist among intelligent men; we would, however, caution the public against the indiscriminate internal use of this article, or any other purgative, at a period when an epidemic of the description of the cholera

exists or is expected. If the digestive organs perform their functions with regularity, it would be extremely unwise to interfere with them by the introduction of any species of medicine. The village of Three Rivers is said to contain about 3,000 or 4,000 inhabitants.

At New York, the cholera still prevails rather extensively. On the 15th, there were reported 113 cases and 59 deaths; on the 16th, 148 cases and 77 deaths; on the 17th, 123 cases and 48 deaths; on the 18th, 124 cases and 58 deaths; on the 19th, 198 cases and 70 deaths; on the 20th, 188 cases and 84 deaths. At Bellevue Almshouse, there were 20 cases and 15 deaths on the 15th; 21 cases and 17 deaths on the 16th; 23 cases and 12 deaths on the 17th; 14 cases and 14 deaths on the 18th; 11 cases and 12 deaths on the 19th; 28 cases and 10 deaths on the 20th. On the 21st, whole number of cases, in the City and Almshouse, 311; deaths, 104.—For the purpose of obtaining more full reports, the authorities have now imposed a fine on any medical gentleman who shall neglect to report a case coming under his care.

We learn from a medical friend, who has just visited all the cholera hospitals at New York, that, at one of the institutions, a mode of treatment has been adopted, which proves more successful than any hitherto tried. It consists in withholding all internals, save only moistening the mouth with barley water, folding the patient closely in thick hot blankets, and applying vigorously, over the whole surface, friction with an ointment composed of blue ointment lb. j., camphor lb. ss., capsicum lb. $\frac{1}{4}$, mixed. For the last three days, the loss under this treatment had been one a day, although about 30 patients were in the hospital.

A man died last week, after an illness of a few hours, on his passage from New York to this city, on board the new steam boat Chelsea. It was supposed to be a case of cholera. There were only five or six persons on board, and as yet no other case has appeared among them, although they are all detained at quarantine, and the boat has been fumigated.

Monthly Notice of New Publications.

The Principles of Medicine, founded on the Structure and Functions of the Animal Organism. By SAMUEL JACKSON, M.D., of Philadelphia. Carey & Lea, Philadelphia, 1832. pp. 630.

DR. JACKSON is well known to the medical public, as the author of some excellent articles in the *American Journal*, published at Philadelphia, and particularly one on Absorption, in the tenth number of that work. The present production, however, is elaborate and finished, and will, we think, obtain for him a permanent and enduring reputation. Its plan may, in some respects, be regarded as new. Its object is to connect, in

one view, the subjects of physiology and medicine, in such manner as mutually to illustrate each other. The work commences with a treatise on general anatomy, in which the several tissues or systems are successively considered. Then follows a chapter on the fluids and their pathological states. The vital properties of irritability, and vital affinity, and the organic actions, are next considered. To these succeed the functions :—1st, of relation, as those of sensation and voluntary motion, with their respective pathologic states, together with the intellectual and moral faculties, and the disorders incidental to them. Under this head, Dr. J. considers the expressions, including physiognomy and voice, and likewise the subject of sleep and dreams : 2d, the organic functions, as that of digestion, both in its healthy and morbid state ; of absorption ; of respiration, with its diseases ; of circulation, and of nutrition. Such is the extensive range of subjects embraced in the present work, and the principle of arrangement which pervades it. We shall not attempt a more detailed account of this valuable and able production, since we should be entirely unable to perform such a task to our own satisfaction or that of the reader, within the limit which we are able to afford these notices the present month. We will merely mention, that, as a specimen of Dr. J.'s manner, and of the clearness and brevity with which he treats the more abstract branches of his subject, we would refer the reader to the treatise on sleep and dreams, which forms the concluding chapter of the first part.

Principles of Physiological Medicine, in the form of Propositions, embracing Physiology, Pathology, and Therapeutics, with Commentaries on those relating to Pathology. By F. J. V. BROUSSAIS. Translated from the French, by Drs. HAYS and GRIFFITH, of Philadelphia. Carey & Lea, Philadelphia, 1832. pp. 594.

WE are indebted to the Philadelphia physicians for numerous well executed translations of French works, of which this is no unfavorable specimen. From the peculiarity of the views adopted by Broussais, and the boldness of the language in which they are expressed, it is no easy matter to do his work justice by a translation. Even to the reader of the original, there is an obscurity and want of precision about the style, which makes it difficult to seize precisely the idea intended to be conveyed. In such, the embarrassment to the translator is very great, as he has only the choice between substituting a phraseology of his own, to express what he may conceive to have been the idea in the mind of his author, and thus exposing himself to the charge of unfaithfulness—or, on the other hand, retaining all the expressions in a literal version, and incurring the blame of a fault which is, in fact, chargeable only to his author. Considering the nature and amount of these obstacles, we think Drs. Hays and Griffith have acquitted themselves with singular ability.

The mode of printing is exceedingly convenient, the leading propositions being in a large and plain type, while the commentary is smaller, and more compact. To those who, in these times of bustle and excitement, can spare but a short time, from other engagements, for the reading of heavy octavos, we recommend the careful perusal of propositions 12, 112, 113, 138, with their respective commentaries, as containing much of what is most peculiar in the author's views and doctrines. To others, however, whose taste directs them to the theory of medicine as a study, and who have leisure for the occupation, every portion of the book will possess strong attraction; and, whatever difference of opinion may exist as to the correctness of the views in question, all must agree in conceding to the author the credit of uncommon natural vigor, assisted and improved by close and diligent investigation into the nature and phenomena of diseased action.

A Rational View of the Spasmodic Cholera, chiefly with regard to the Best Means of Preventing it. By a Physician. Clapp & Hull, Boston. pp. 36.

THIS little tract recounts, in a small space, and urges with good earnestness the adoption, by the individuals for whose benefit it is written, of all those means of *preventing* an attack of cholera, which experience has proved to be most effectual. It is designed to circulate among and enlighten that class of persons most subject to the disease, and is suited, by its plain language, brevity, and cheapness, to the purpose thus intended. The various causes and the medical treatment are but casually adverted to. *Prevention* is the burden of the book, and, even if it serve no other useful purpose, it will prove valuable as a temperance tract. We hope it may find its way whither it is sent by the author.

Whole number of deaths in Boston for the week ending July 20, 27. Males, 12—Females, 15.
Of consumption, 1—intemperance, 4—unknown, 1—infantile, 1—dropsy, 2—scarlet fever, 3—mortification in the bowels, 1—dropsy on the brain, 1—measles, 2—spasms, 1—teething, 1—abscess on the brain, 1—palpitation of the heart, 1—erysipelas, 1—liver complaint, 1.

ADVERTISEMENTS.

JUST PUBLISHED, at the Office of the Boston Medical and Surgical Journal, "A RATIONAL VIEW OF THE SPASMODIC CHOLERA, chiefly with regard to the Best Means of Preventing it. By a Physician." The purpose of the writer has been to embody, in a plain, practical form, all the important facts and suggestions, in regard to the prevention of Cholera, which have been developed in its march through other countries, and in its progress thus far in our own. These have been so condensed as to form a manual which, from its cheapness, may be within the reach of those to whom, on account of their condition and circumstances, it is most necessary.

184 Washington Street, Boston, July 20, 1832.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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WEDNESDAY, AUGUST 1, 1832.

[NO. 25.]

THE LATE BARON CUVIER.

WHILE France and learned Europe are still engaged in deploring the loss of this illustrious man, and in pronouncing splendid eulogiums upon his memory, we shall take this opportunity of paying our simple tribute, in the shape of a summary of his life and labors : even the briefest record of these must constitute no mean monument of his fame.

GEORGE CUVIER was born at Montbeillard, in the year 1769. Yet he was, strictly speaking, not a Frenchman. Montbeillard, at the period of his birth, and for more than a quarter of a century after, belonged to the Duchy of Wurtemberg ; it was eventually included, by republican France, in the newly-formed department of the Upper Rhine. The father of M. Cuvier was a Swiss : after serving for forty years in the French armies, and attaining the rank of a chevalier, he retired on a pension as commandant of artillery at Montbeillard.

The capital of Wurtemberg was chosen as the scene of young Cuvier's education. At Stuttgard he devoted himself to the study of mathematics, philosophy, law, and jurisprudence ; and it deserves to be noted, that the chief object of the courses laid down for him was to qualify him for a place in the administration, for his family is said to have had some interest with, and some claims on, the reigning Duke Charles. But the French Revolution produced great changes. We find our student suddenly transferred from Stuttgard to the coast of Normandy. At Stuttgard he is known to have derived, from the mountainous scenery and other local peculiarities, many of those impressions which were afterwards so admirably developed in his maturer views of natural history ; and at Stuttgard too he had tried his strength in the various learned societies which were found there. Removed now to his Norman residence, in the 20th year of his age, as a tutor in the family of a French nobleman, he had his first opportunity of indulging in those favorite pursuits which ultimately stamped him as perhaps the greatest naturalist the world ever saw. It was not long till he had dissected, described, and drawn, almost all the fishes that were to be met with on the coast of La Manche ; and here it was that he made his grand and original observations on the structure of the molluscous tribe.

We next find him in Paris, engaged as a private lecturer. He was soon appointed as an assistant to Professor Mertrud, in the courses of comparative anatomy at the Museum of Natural History ; and imme-

diately admitted a member of most of the learned societies of the French metropolis. Of the Institut, which was organized in 1796, he was one of the earliest members; and the numerous memoirs and discoveries which he laid before that body, rapidly extended his reputation, while they formed the bases of many of his subsequent publications. Before he was 29 he received the Chair of Natural History at the Ecole Centrale; and in 1798 published his first separate work—the *Tableau Elementaire de l'Histoire Naturelle des Animaux*. This was the basis of the *Règne Animal*; it presented a new arrangement of the whole animal kingdom—the principles of which, however, had been already given by him in a memoir on a new division of the white-blooded animals, written at the age of 26, when he first ventured to attack Linnæus's division of the invertebrata into the meagre and confused classes of insects and worms. His own division, at the same time it should be noticed, of invertebrated animals into the three now well-known classes, was not adopted by him until the year 1812.

In the meantime, the materials of his courses of lectures on comparative anatomy were attaining a vast extent, and he determined to give them to the public. With this view they were reduced to form by his two able assistants, MM. Dumeril and Duvernoy; and, in 1800, were accordingly published as the first two volumes of the *Leçons d'Anatomie Comparée*. M. Cuvier was himself engaged, during the compilation of those volumes, with the excavations of the gypsum strata of Montmartre, and the comparison of the bones discovered there, with the skeletons in the Museum. In the remainder of the work, which appeared in 1805, the parts which relate to the organization of insects and molluscous animals were exclusively his own, and probably no other anatomist then living was equally qualified to undertake those obscure and difficult subjects of zootomy. The *Leçons* altogether are known to comprise the most perspicuous, correct, and complete systematic view of the science to be found in any language.

He succeeded Mertrud, in 1802, in the professorship of comparative anatomy; and here we cannot help pausing for a moment to contemplate the wide—the magnificent—range which he allowed himself, in the pursuit of his favorite science. Had his researches in comparative anatomy been conducted only in connexion with human, his illustrations and his contributions to the science could scarcely have extended beyond a few classes in the animal kingdom. If in connection with geology alone, his knowledge would have been mostly limited to the hard parts. Zoology, unaided by his general acquirements in comparative anatomy, would perhaps have been in danger of suffering additional confusion of arrangement. But with his unrivaled combination of qualities of mind, and ardor in the pursuit of all those collateral investigations which should be brought to bear on the one great end in view, M. Cuvier was enabled to attain a degree of excellence, as a comparative anatomist, which has never yet been equaled, and, in the lapse of ages, may possibly be long ere it be surpassed.

When Buonaparte returned from Egypt, and, after having been declared First Consul, was vain enough to permit himself to be chosen President of the Institut, Cuvier, who was one of the secretaries of that

body, was necessarily brought into frequent intercourse with his future sovereign. The grand scheme of organizing the schools of France made this intercourse still more intimate, and Cuvier was appointed one of the six Inspectors General, whose business it was to establish Lyceums in the thirty principal cities of the kingdom. It was while on this mission, at Marseilles, that he so profitably employed his leisure moments in investigating the ichthiology of the Mediterranean.

Those examinations of the Montmartre strata, constitute an era in geology; they were the continued labor of many years, and were crowned by the publication of the *Recherches sur les Ossements Fossiles*, in seven volumes, 4to. 1812–1824. In this great work M. Cuvier embodied not only the information which he derived from his personal inquiries in the neighborhood of Paris, on his several visits to the interior of France, and on his missions to Italy and Holland, but the abundant stores of knowledge which he procured from the correspondence of the most distinguished naturalists in all parts of Europe. The success of his labors in identifying the fossil bones of the mammali, deservedly obtained for him the highest celebrity, while it afforded the most convincing proof of the utility of zootomical knowledge, as applied to geological investigations, that has ever been found in the records of science. No naturalist, indeed, ever enjoyed such opportunities as M. Cuvier for those particular researches; but perhaps no man ever possessed, in a more eminent degree, all the requisite qualifications for their successful employment. His indefatigable industry and enthusiasm—his extensive general knowledge—the beauty of his language, and the elevated tone of his descriptions, with the grandeur of his views, and the sublime truths which they unfold, regarding the past revolutions of the animal kingdom and the globe we inhabit, must convince every one that there was really no other individual living who could have so successfully performed what he accomplished in regard to the restoration of extinct species.

We shall not attempt, in this limited sketch, to introduce any further remarks relative to the *Ossements Fossiles*; nor do we think it necessary to more than allude to the eloquent *Preliminary discourse* with which the work commences,—a discourse which, even had its author never written anything else, would have perpetuated his name to a late posterity. It has been translated into several languages, and the English version, by Professor Jameson, has gone through several large editions.

In 1808 Cuvier was appointed one of the Councillors for life of the newly-erected Imperial University—an office which gave him frequent occasions of discussing political affairs before the Council of State and in presence of the Emperor. He was sent, in 1809–10, to organize the academies of the Italian states; and his arrangements at Turin, Genoa, and Pisa, were found so advantageous that, on the return of the sovereigns of these states, the numerous measures adopted by Cuvier were preserved inviolate. Subsequently, in Holland and the Hanse-towns, the changes and nominations which he made were similarly respected and preserved; and, what is still more worthy of being recorded, though a protestant by country, birth, and education, he was yet sent, in 1813, to reorganize the University of Rome; and many of his improvements in La Sapienza were retained even after the return of the Pope.

It might be thought that the labor of collecting materials for such a work as the Fossil Organic Remains, and the task of arranging and describing them, were sufficient to have occupied the greater portion of M. Cuvier's life : but we have seen what some of his other occupations were, and to these we shall now add one fact more, relative to the work just alluded to. M. Cuvier found leisure not only to execute the drawings for, but even to engrave with his own hand, some of the most detailed osteological plates which adorn the several volumes.

But we have still other works of his to notice. His writings and researches were by no means confined to topics connected with the animal creation. He was in the habit of collecting, in his *leisure* hours, the most interesting historical facts illustrative of the progress of science, and of examining the scientific labors, and composing biographical memoirs, of the eminent members of the Institut, for many years back. Of these memoirs, a collection has been published in three volumes, and they serve perfectly to establish his claim to an acquaintance with *all* the physical sciences, and the march of discovery in each of their various departments. The style in which they are written is easy, elegant, and perspicuous, and not a murmur has ever been breathed against their strict impartiality and truth.

The *Règne Animal* made its first appearance, in four volumes, in the year 1817—a work which is universally allowed to constitute the best outline of the present state of zoology and comparative anatomy. It was here that he may be said to have ultimately adopted his quadripartite division of the animal kingdom, after an experience of thirty years. Faults have been found, it is true, with this somewhat arbitrary division. It has been even characterised as not very uniform or philosophical, and as perhaps too much fettered by the author's early ideas of classification. But, on the whole, it is allowed to be a classical work, and is justly adopted, as the great standard of reference, by the ablest naturalists of every country. We need be the more brief in our notice of it, in consequence of its being, after the Preliminary Discourse, that work of M. Cuvier's which is perhaps best appreciated by the English public.

It is pretty generally known, that the great undertaking on which his heart was set to the last moment of his life, was a complete system of comparative anatomy. For this vast enterprise, which he intended to surpass all that he had yet achieved, and to which he has alluded in all his publications—which was, in fact, the great study of his life, and the idol of his thoughts, during nearly his whole career—he had prepared an immense series of drawings and engravings ; and, indeed, the Museum of Comparative Anatomy owes its origin to his strong desire of accomplishing this beloved object. What he has done for the class of fishes—and which he always looked upon as by far the most important of all his contributions to the natural history of vertebrated animals—may be contemplated as an earnest of what he would have done. It is said that he and Valenciennes, his colleague, had collected materials for an account of above 6,000 species of fish, 5,000 of which, it was calculated, would occupy the space of not less than twenty octavo volumes.

We have now noticed, however briefly, the principal scientific occu-

pations of M. Cuvier ; but, vast and all-engrossing as they seem, they must be absolutely considered as the pastime of his leisure, when taken in connection with his functions in the state. Those functions, in fact, he always considered as his original destiny—the business to the conduct of which his early education was directed. He was about to be named a Councillor of State by Napoleon, when the events of 1814 occurred to prevent that high distinction. It was, however, delayed only ; for in that same year he was named to the office by Louis XVIII. In 1815, he was retained as a member of the Commission of Public Instruction, and charged with the chancellorship of the university. During the “hundred days,” his connection with the Council of State was suspended ; but even then he continued to hold his important situations connected with public instruction.

From all cabals and political intrigues, M. Cuvier ever kept aloof—a course of conduct which was sure to gain for him, as it did, the insidious hostility of numerous partisans. He was chiefly engaged with state business relating to the administration of the interior, and the regulation of the non-conformist religious sects ; and, besides this, was entrusted as King’s Advocate, to defend before the Chambers all the principal projects of law.

It was while on a scientific visit, some years ago, to England, that he was apprised of his having been elected, during his absence, one of the Forty—constituting the Academie Française—the highest distinction that pre-eminent talents can obtain in France or in Europe. Soon after, he did not hesitate to decline the Ministry of the Interior, being dissatisfied with some of the terms on which it was offered to him. In 1819, he was named President of the Interior of the Committee of the Council of State, a place which he was anxious for, as unconnected with intrigue, but demanding method, constant activity, rigid discharge of duty, and a thorough acquaintance with the laws and principles of administration. He was created a baron after this, a spontaneous mark of favor from his sovereign, and received several orders, both from the King of France and the King of Wurtemberg, his early protector.

But we will not attempt to enumerate the various honors and marks of distinction heaped upon Baron Cuvier from all quarters, as for a like reason we have not ventured even to allude to all the various publications to which he contributed his powerful assistance ; either attempt would fill several pages of our journal. We must even now draw our brief notice rapidly to a close.

With all his mighty achievements in science, and almost every branch of human knowledge, no man, were one to judge from his personal bearing, would seem to have achieved less. In the enjoyment of competent wealth, influence, profound learning, and the highest fame, M. Cuvier’s easy and unaffected manners never failed to command the love and esteem of all who had the honor of enjoying his acquaintance. Many in England, which he again visited not very long ago, will ever remember him with veneration and delight. His very look was calculated to impress respect and admiration. In his domestic circle, his deportment is described as having been amiable to the highest degree.

The circumstances of the death of Baron Cuvier we shall append in some detail. His funeral honors were performed with unusual magnificence. They were attended by not less than between four and five thousand persons, including all those who were of any literary or scientific pretensions in Paris; and the orations pronounced over him, by the representatives of the different learned societies with which he was connected, were remarkable for their number and impressive eloquence. Their theme could not have been a more fertile one; for their illustrious subject was universally admitted to have been guided in his great career by nothing but the pure love of knowledge, and the ardent desire to benefit his race. His labors, in a word, will merit the gratitude and command the admiration of posterity.—*Medical Gazette.*

[An interesting account of the last sickness and of the death of Baron Cuvier will be given in a future number.]

SPONTANEOUS EVOLUTON OF THE FŒTUS IN UTERO.

Case of Spontaneous Evolution of the Fœtus in Utero, after the Liquor Amnii had been discharged, and the Uterus contracted. By SILAS JAMES, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THE term spontaneous, as here used, was first employed by Denman, for expressing the series of effects terminating in an evolution of the child, wholly independent of the practitioner, and it is now employed by all writers on obstetrics. The fœtus in utero was, by Hippocrates, compared, in shape and movement, to an olive in a bottle having a throat large enough only to allow it to pass lengthways. When the shoulders or sides of the body present, delivery is prevented until the child turns one or the other of its extremities to the os uteri, which we are directed to assist the uterus in accomplishing, by pressing the head and upper part of the trunk upward, and then bringing down the lower extremities, so as to make a footling case of it. Authors have differed in opinion as to the most suitable time for endeavoring to accomplish this by manual effort. Baudeloque and Hunter recommend its being done the moment after the waters are discharged, the os uteri being dilated. Clarke advises its being done before the membranes are broken, and says if we take it when the os uteri will admit the finger and knuckles, it is the better time, because we then turn the child as if in a bucket of water. These directions, however, do not apply to cases where the practitioner, when first called, finds the waters have been long discharged, and the shoulder of the child is jammed at the superior aperture of the pelvis. Here we are directed to pass the finger and thumb, in the form of a crutch, into the armpit of the child, in order to raise the body towards its head, and towards the fundus of the uterus, till it has sufficiently moved out of our way to allow of the introduction of the hand into the uterus. But in some cases, when we are first called, the shoulder, says Denman, is so far advanced into the pelvis,

and the action of the uterus at the same time so strong, that it is impossible to raise or move the child, which is so strongly impelled by the pains as to overcome all the force we are able to exert. "This impossibility of turning the child, has, to the apprehension of all writers and practitioners, left the woman without any hope of relief." "But in a case of this kind," continues Denman, "I was so fortunate as to observe, though it was not in my power to pass my hand into the uterus, to turn the child, that, by the mere effect of the action of the uterus, an evolution took place, and the child was expelled by the breech." The following case was equally as hopeless as the above, and demonstrates the great power possessed by the uterus to overcome what were, before the time of Denman, considered as insuperable obstacles to safe delivery.

I was called to deliver Mrs. B., a lady of small stature and narrow pelvis, who had been attended in labor, during the previous twelve hours, by a young practitioner, who had discovered an arm presentation of the child. The waters had been discharged some days previous. I found the right arm without the os tincæ, in a situation for the palm of the hand to receive mine as in shaking hands. Her pains were severe and regular. It was concluded to attempt turning, preparatory to which, I gave her 80 drops of laudanum, and, after a third dose of that quantity, succeeded in allaying the pains and inducing drowsiness. After preparing the hand, I attempted to introduce it, and found the fœtus lying across the brim of the pelvis, and pressed so hard, that it was impossible to return the arm to remain any longer than while held with my hand, and that the child was in all respects immoveably fixed; nor was it possible, on account of the long evacuation of the water, and hard contraction of the uterus, to introduce a finger, although, at the time, no uterine pains existed. The case was then left for a time to nature, and a gentleman of distinguished skill, Dr. Eldredge, was called in consultation. After a few hours, the pains returned in regular succession; and on his arrival we proceeded to examine again, and, to our great satisfaction, found that nature, unaided by art, had accomplished an evolution, and the woman was safely delivered.

West Greenwich, R. I., July, 1832.

THE SPOTTED FEVER AND THE CHOLERA.

[WE gave some account, at the time, of the disease that has recently prevailed in New London. The following communication derives additional interest from the fact that its author saw and treated many of those cases. We should be pleased if he would give us a further account of the symptoms that corresponded and those that did not, and also of the precise treatment that was found so successful in the New London epidemic. Our thanks are due to Dr. Miner for his attentions.]

Middletown, Conn., July 25, 1832.

MR. EDITOR,—You will oblige me, and probably the public, by publishing the following letter. It is from a gentleman who has lately

had very extensive experience in the treatment of a sinking disease which bears a close analogy to malignant cholera.

Yours, very respectfully,

THOMAS MINER.

New London, July 23d, 1832.

DEAR SIR,—Dr. Mercer handed me your letter, and I shall be gratified if my remarks in answer to it are any way satisfactory. Being delegated by our Board of Health to visit New York, I arrived there on the 7th instant, and remained in the city, studying the disease, cholera, three days. The morning I left New York, Dr. Manwaring, of this place, joined me in the delegation, and our report on returning was this:—That the disease, in all its symptoms, resembled that which prevailed here last spring (an account of which is to be published on Wednesday, in the *Gazette* newspaper of this place); and that, in regard to treatment, we did not think it could be altered for the better, by adopting any we witnessed in New York. We could not discover any general principle to guide *their* practice. For instance: at the hospital * * * *, the physician gave half a grain of camphor, in an ounce of cold water, every twenty-five minutes, and as much and as often in enema. On asking the reason, he stated—The cholera *may* be owing to animalcula, and camphor was an antidote. To another, ice was given, and with the remark, that there seemed to be a raging, internal fever. On requesting the doctor to put his hand to the patient's mouth, and feel if the breath was hot, it was found cold as the north wind which blew freely over the patients. To another, *one* bottle of hot water was applied to the feet, while his limbs were exposed freely; and this was called the *heating plan*. These patients were all cold as a corpse, and without the least pulse at the wrist. If I mistake not, the name Cholera carries the idea of mystery, and is by many combated blindly; while the simple, clear, and loud indications are disregarded. As a general remark, we stated, on returning, that, excepting with our patients the brain was oftenest affected, while at New York the bowels were—in all other respects, they resembled each other closely, and, we believed, required the same treatment. They looked alike, before and also after death.

One patient from New York fell under my care [at New London]. She left there the 14th, was ill with what is called the premonitory symptoms the 15th, arrived here the 16th with diarrhœa, and the next night began to puke. On the morning of the 18th, I found her purging rice water freely, and puking a light turbid fluid. She had violent and painful cramps in the calves of her legs, some pain in the head, and more at the epigastrium; pulse ninety, and very weak; skin cool, paucity of urine, and a desire for cold water. Gave her hot brandy toddy once in four hours, a pill of opium and calomel once in two hours (two grains of opium and one of calomel), put hot bricks to her feet, and three blankets over her. In twenty-four hours, the colliquative (as I call them) discharges from the stomach and bowels were arrested completely, and, in thirty-six, she had no complaint but debility. The medicine was diminished gradually, during this time, *pro re nata*, and she rapidly recovered. After forty-eight hours from the time of arresting

the evacuations, she had a bilious discharge from the bowels, without any other medicine except what is mentioned, and passed water in full quantity. I hope the plan may be tried in other places, and should be very much gratified to know the result.—I am, sir, respectfully, your servant and friend,

J. MORGAN.

P. S.—At New York, I saw about fifty patients, all in the hospitals, and more private. Of them, forty, I believe, died; and I further think, had we treated our cases as those I saw in New York, many more would have been lost. Our disease seems to have been something between your sinking typhus and cholera (Asiatic). The only hope in very bad cases is early, prompt, and decisive treatment; otherwise the patient dies.

Remarks.—It is highly gratifying, at last, to find a case of cholera treated according to the general principles of sinking typhus, by a physician familiar with the latter disease. Except the moderate quantity of calomel that was added, the practice was precisely what a case of the same severity of sinking typhus would have required, and the symptoms appear to have been controlled with less difficulty than in ordinary typhus syncopalis. I have no doubt, where the external circumstances are equally favorable, cholera is much the more manageable disease of the two. It appears to have, in general, but one paroxysm of *subsidentia*, or death-like sinking of the powers of life. If this is speedily overcome, by bold, energetic, and persevering efforts, upon the same principles as have been successfully practised in New England the last thirty years, the battle is soon fought, and the victory is complete. But, though we occasionally succeed in breaking up and producing a perfect resolution of sinking typhus, within a few hours, this is not generally the case. Commonly, we only mitigate the symptoms for the present, and are obliged to continue the course, though somewhat lessened in activity, for several days, in which we have to treat an irregular typhus, that is liable to diurnal paroxysms of gastric sinking. Typhus syncopalis appears to bear about the same analogy to malignant cholera, as intermittent does to remittent, sporadic catarrh to epidemic catarrh, or, perhaps, more nearly still, the malignant remittent of Batavia to the yellow fever of the West Indies. A physician who is familiar with either of these diseases, can certainly treat its correspondent complaint with sufficient skill and dexterity. I have no hesitation in giving it as my decided opinion, that, if it falls to the lot of the New London physicians to meet with epidemic cholera, their practice will be found to be, by far, more successful than has hitherto been the fact in any city, either on the eastern or western continent.

T. M.

DR. WOOD'S REMARKS ON THE CHOLERA.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—My design in the following remarks is to give a summary of the principal exciting causes, the most essential symptoms, and what I

conceive to be the rational treatment, of spasmodic cholera. In describing the disease, I shall dwell more especially upon the first and second stages; deeming the third, or incurable collapse, that point in this disease, as in all others, in which the physician ceases to struggle with death for the mastery.

The principal predisposing causes of cholera are intemperance and poverty. Besides these, we may rank under the same head, fear, grief, anxiety, fatigue, excessive indulgences of any kind, and *all* other causes which have a tendency in any way to weaken the physical powers. After the excitement produced by the abuse of spirituous liquors has subsided, the predisposition in an individual to an attack of the cholera is greater than from any other known cause. But I fear this fact has been dwelt on too much, to the exclusion of one of nearly equal importance. I have reference to that enfeebled state of the constitution which follows, as a consequence, from an impoverished diet. There is a class of temperate poor, whose circumstances in life deprive them of the means of obtaining wholesome food and proper clothing, living in small, dark, damp, and badly-ventilated houses; which does and will suffer more or less from the ravages of this pestilential scourge. In New York, I saw many laboring under these circumstances, and should think it strange if we had not among us some in a similar situation.

The bad effects arising from the use of improper food were remarkably exemplified in the Bellevue Almshouse, New York. This institution is elevated, and pleasantly located on the East River, containing over 2,000 paupers, mostly intemperate and broken down by disease. Their diet, prior to the appearance of the disease, and for some time after, consisted chiefly of Indian meal, with the addition of coarse salt meat, or salt fish, three times a week. The ravages of the disease, very soon after its appearance, were so rapid and frightful, that the city authorities gave freedom to many, and thought it might be necessary to remove the rest to some more healthy situation. Before this was put into operation, the Special Medical Council visited Bellevue, and, after due consideration of all the circumstances that had any bearing on the subject, it was agreed not to remove them, but to recommend a complete change of diet. The beneficial results of this measure were soon perceived. After the third or fourth day, the disease greatly abated, and a decided diminution in the number of new cases has continued daily down to the present time. As a matter of course, many of the inmates who died of cholera had grown temperate from necessity, and others had the credit of being so from choice. Now, if this be true, what is the inference? In addition to this statement, it may be observed, that, at the city hospitals and elsewhere, many children and young persons perished, who, it would not be unreasonable to suppose, had rarely, if ever, partaken of ardent spirits.

During my stay at New York (from the 11th to the 17th of July), I had an opportunity of seeing more than 500 cases of cholera; and, from a careful examination of the patients themselves, and frequent conversation with physicians, I feel little hesitation in expressing my opinion as to the characteristic symptoms of the disease, and the order in which they almost invariably appear. They are—1st, diarrhœa, or purging,

which continues from three hours to as many days ; 2d, in addition to purging, which *now* becomes excessive, vomiting ; and 3d, from fifteen minutes to an hour after vomiting and purging have commenced, spasms or cramps (generally of the gastrocnemii) ensue. This last symptom does not continue so long as the puking and purging, always disappearing early in the stage of collapse ; and so, in the majority of cases, do the first and second.

In what is called the first stage, diarrhœa is the most conspicuous symptom ; but there are others, as dizziness, languor, occasional nausea, ringing in the ears, and twitchings of the muscles in various parts of the body. These symptoms, however, are generally overlooked by the patient.

In the first, or diarrhœal stage, I do not mean to imply that because an individual has this derangement of the bowels, he must necessarily have cholera. This is not true in point of fact. When cholera is prevalent, there is a general predisposition to bowel complaints ; and this irritable state of the intestinal canal, if long continued, prepares the system for an attack of cholera. We shall therefore continue to consider diarrhœa a precursor of cholera, and, as it is under the perfect control of medicine, recommend to all those who suffer from it to apply seasonably for medical advice.

In the second stage, besides puking, purging, and cramps, there are also other symptoms, viz. :—restlessness ; a burning sensation at the pit of the stomach ; coldness of the extremities, without any very marked change in the temperature of the body ; an accelerated and contracted pulse ; an anxious and shrunk face, with sharpened features ; eyes dull and sunken, surrounded by a dark brown circle, sometimes of a faint, dirty, bluish tint ; tongue moist, and slightly coated ; voice hoarse and broken. The discharges in this stage, both up and down, assume the appearance of rice water. This is one of the peculiar characters which distinguish this disease from all others. If the physician is called early in this stage, he may consider himself very fortunate ; for if there be a point in the disease truly assailable, it is this ; and in this stage *only* can the physician be said to meet death on an equal footing.

With regard to the third stage, or the irrecoverable collapse, I must refer you to authors, who have dwelt more upon it than upon those stages which I conceive to be of vastly more importance to the well-being of suffering humanity ; for I do most solemnly assure you that I have never seen or heard, during my stay in New York, of a single case of true collapse being restored—those reported as such being cases of the most aggravated form of the second stage.

For the treatment of the diarrhœal stage, I should recommend abstinence from solids, remaining quiet in the house, and swathing the bowels with flannel ; after which, prescribe a simple cathartic, as rhubarb and calcined magnesia, of each ten grains, or castor oil, from half an ounce to an ounce, in some aromatic drink, or calomel two grains, and rhubarb fifteen. If one of these prescriptions does not operate in the course of six hours, repeat it. During the prevalence of cholera, small doses of medicines are particularly advised, because serious consequences sometimes attend the administration of common doses. After the bowels are

fully evacuated, the patient may be allowed a bowl of thin arrowroot, or ground rice well boiled, flavored with cinnamon, adding, if necessary, from two to four tablespoonsfull of old port wine. If these remedies fail, confine the patient to bed, apply hot applications to the abdomen and feet, and give calomel and opium, in small doses, until healthy secretions are restored.

The most successful treatment of the second stage I saw employed in New York, was as follows, viz. :—place the patient between warm blankets ; stop the use of *all* fluids, as they increase the irritability of the stomach ; and, if the pulse is not much depressed, bleed moderately, according to the patient's strength, avoiding an approach to faintness. As there is considerable heat, and often tenderness, over the epigastric region, would not leeching or cupping, followed by a large blister, be advantageous, and, when the pulse is feeble, supply the place of the lancet ? After bleeding, if the vomiting is excessive, let the patient swallow a small piece of ice, to be repeated if necessary ; then give a bolus of ten or twenty grains of calomel and one or two of opium, and every half hour or hour, whether the bolus is retained or not, give pills of calomel and opium, containing from two to five grains of the former, and from a quarter to a half of the latter. Meanwhile, apply hot sinapisms to the abdomen and feet, and hot sand bags, or bottles of hot water, to the body and extremities. At the Greenwich Street Hospital, the physicians employ frictions of strong mercurial ointment, combined with camphor and cayenne pepper, and say, if salivation is produced, the patient recovers. Should the purging continue obstinate, throw up an injection of one or two drachms of laudanum, in a gill of warm water. The cramps are more troublesome *now* than at any other time. To remove them, rub the affected limbs briskly with flannel or a soft brush, dipped in a saturated solution of camphor in alcohol, or the essential oil of peppermint, or give a smart shock of electricity, or apply a lump of ice suddenly to the sole of the foot. Either of the above remedies was found effectual in relieving them.

External heat and the pills are to be continued until reaction takes place, and the discharges begin to assume a bilious aspect ; after this, the heating applications may be gradually removed, and the pills discontinued or taken at longer intervals. Sometimes reaction is attended with considerable fever, a quick pulse—the tongue being dry and brown, with a red edge—stupor, and dilated pupils. These symptoms, among others not mentioned, constitute what is called the consecutive stage. In all the cases of this stage which I saw, there was decided congestion of the brain ; to relieve which, cupping, blistering, and cold applications to the head, were the remedies employed. But if reaction do not take place, the symptoms of this stage increase in severity, and the third, or stage of collapse, commences. This is known by increased coldness of the trunk and extremities ; blueness of the face, hands, and feet ; a feeble pulse ; and a haggard, shrunken countenance. At this period, the most powerful stimuli, in combination with the above-mentioned treatment, such as oil of peppermint, cajeput oil, ammonia, brandy, &c., may be exhibited. But I am persuaded, so far as my observations have extended, that little confidence is to be placed on these or any other remedial agents.

I saw nothing in the post mortem appearances differing from what has already been described by authors.—Respectfully yours,

JAMES WOOD, M.D.

Boston, July 26th, 1832.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, AUGUST 1, 1832.

TREATMENT OF CHOLERA ON ITS FIRST ATTACK.

IN the New York Journal of Commerce, a writer under the signature of "CULLEN," after recommending the stimulating treatment, so generally advised on the first access of the Cholera, goes on to say—

I have recently been strongly confirmed in my views, from the statement of a very intelligent ship master, who, (in two voyages to India, one of them to Calcutta and the other to Manilla, in both of which ports he found cholera prevailing to an alarming extent,) has had ample experience in the treatment of this formidable disease. While at Manilla, his whole crew, with himself, were attacked with cholera; and yet, though some of the cases, and his own in particular, were very severe, *not one of them proved fatal*. Besides, he experienced a slight attack himself at Calcutta. The treatment was as follows: As soon as the symptoms were so urgent as to make it evident that the case was actually cholera, (and generally there was no difficulty in ascertaining this point in a very few minutes, or even at the moment in which a man declared himself unfit for duty,) the captain, without being very scrupulous as to the measure or quantity, put about a hundred drops of laudanum, and nearly as much of the spirit or essence of peppermint, into a wineglass, and filled it with brandy. This he gave the patient immediately. With a few, who were inclined to be intemperate, the dose of brandy was a gill or even more. At the same time, the patient was wrapped in blankets, and heated applications were made to the stomach, abdomen, limbs, and feet. This treatment, applied instantly, controlled the vomiting, purging, pain, cramps, spasms, &c. and removed the coldness and numbness of the extremities, in general, so speedily, that there was seldom occasion to renew the dose, and the disease was usually nipped in the bud. In his own case, which the captain considered as of the severest kind, he remarked, that if he had waited an hour or two for medical assistance, and been entirely ignorant of the proper treatment, his condition would unquestionably have become hopeless in that time.

I have little to add to my former remarks, except to enforce, with renewed earnestness, the *immediate attention to the very first symptoms of Cholera*. It is believed, that nine tenths of the mortality of this disease in Europe, are owing to the delay in procuring medical aid, or to the timidity of the physicians in giving suitable doses of medicine: or to another circumstance, arising from mistaken medical theory. After the symptoms are controlled, most of the foreign practitioners seem to think that there is danger from the very remedies which they have employed;

and this they attempt to remove by bleeding and cathartics. These processes are very liable to produce a relapse, and in general are worse than useless. Further—there is frequently an indecision in *keeping the ground* that has been gained. The remedies should be generally continued, in diminished, but *regular* doses, every 2, 3, or 4 hours, and in certain cases much more frequently, as long as there is any apprehension of the return of the symptoms.

The writer who gives us this statement, is one whose experience and acknowledged ability in his profession entitle his opinions to great respect; and the Captain referred to is Captain Nash, who sailed from this city. A similar account we received from a gentleman of high standing, who has spent much time in India, and is recently returned from Calcutta.

CHOLERA AT NEW YORK.

On the 21st ult., there were 291 cases and 94 deaths; on the 22d, 230 cases and 85 deaths; on the 23d, 205 cases and 63 deaths; on the 24th, 239 cases and 79 deaths; on the 25th, 144 cases and 53 deaths; on the 26th, 123 cases and 44 deaths; on the 27th, 119 cases and 41 deaths; on the 28th, 142 cases and 63 deaths. At Bellevue Almshouse, where the disease appears to have nearly accomplished its work, there were but 20 cases and 10 deaths on the 21st; 9 cases and 5 deaths on the 22d; 26 cases and 20 deaths on the 23d; 22 cases and 7 deaths on the 24th; 10 cases and 5 deaths on the 25th; 14 cases and 7 deaths on the 26th; 3 cases and 5 deaths on the 27th; 1 case and 4 deaths on the 28th. On the 24th, at Yorkville and Harlem, near the city, there were 35 cases and 10 deaths; on the 25th, 3 cases and 3 deaths; on the 26th, 4 cases and 4 deaths; on the 28th, 2 cases and 1 death. At the State Prison at Sing Sing, the disease has committed great ravages. At Brooklyn, it prevails somewhat extensively; the number of new cases on the 25th being 17, deaths 4—on the 27th 13, deaths 7.

DAY OF HUMILIATION AND PRAYER.

WE are truly happy to find that His Excellency Governor Lincoln has appointed a day of fasting, humiliation, and prayer, to be observed throughout this Commonwealth, in consequence of the threatened visitation of the pestilence that walketh in darkness. Every precaution which wisdom and experience can suggest, ought to be taken to prevent its appearance among us. But since all will be in vain, without the sparing mercy of that Being who controls all events, it becomes us to offer our petitions, with deep sincerity, to our common Father, who holds the rod, so richly merited, in his own hand. We are not threatened, it is true, by the voice of a prophet; but that which saved Nineveh from destruction, may prove no less availing at the present day.

The day appointed by the Governor is the 9th of the present month. And if there be any one that doubts the propriety of this measure, we beg him to read a discourse on the efficacy of prayer, preached at Edinburgh, on a similar occasion, by the celebrated Dr. Chalmers. This powerful and eloquent discourse has been republished in this city, and, at the present day, commends itself with peculiar force to the notice of us all.

PRATT'S ARTIFICIAL NIPPLE.

As a preventive and a cure for irritable, inflamed, excoriated, and fissured nipples, we have never met with anything that promises so much as the invention of Dr. Pratt. It is decidedly an improvement over everything of the kind heretofore in use, and it becomes every mother who is at all subject to the above infirmities, to rejoice that so effectual and speedy a remedy is at hand.

The soft or udder part of this apparatus is tanned in such a way as to render it durable, and yet soft and tasteless; and it is for this mode of tanning, chiefly, that the inventor has procured his patent. It is not wholly for this, however. The form of the metallic part, and the mode in which the udder is confined to it, are greatly superior to those we have been in the habit of using, and the diversity is such as entirely to change the principle on which the instrument acts. It is used with great ease by the nurse or mother, and printed directions, for preserving and applying it, accompany each instrument. We have seen it used by a lady, in whom this part was extremely flat, and so tender as to render the very thought of nursing her child shocking to her. By means of this apparatus, the babe took hold, and emptied the breast without producing the slightest sensation of uneasiness. Indeed, we esteem the thing invaluable.*

Observations on Tobacco, by John Vetch, M.D.—Under other circumstances it had been my intention to give to the public a series of detailed cases, to establish the beneficial effects of tobacco as a local application, and one capable of alleviating, in a great degree, and of sometimes altogether arresting, various forms of specific inflammation, more particularly gout, and rheumatic inflammation attacking the synovial membrane. Besides the power which this vegetable possesses in allaying the pain and abating the inflammation of gout, it assists the parts most materially in recovering their tone and strength.

The sensible effects of tobacco upon the skin and cuticle are readily perceived by immersing, for a short time, the fingers in an infusion, or in a watery solution of the extract.

The infusion forms a valuable application in all cases of erysipelatous inflammation; and the only precaution to be attended to, is not to apply

* Pratt's Artificial Nipple is sold in this city at \$1.25, by the following apothecaries: Charles White, corner of Washington and Winter Streets; L. H. Bradford, corner of Washington and Pleasant Streets; and Beza Lincoln, corner of Salem and Prince Streets.

it to any part contiguous to the stomach, unless the production of nausea be at the same time desirable.

I was led to appreciate the valuable sedative and astringent power of tobacco, in the first instance, by the benefit I derived from it in cases of the last-mentioned class, having many years ago instituted an extensive trial of all the known narcotics, with the expectation of deriving additional aid in the treatment of purulent ophthalmia.

The good and the powerful effects which I obtained from the tobacco, fully compensated for the inefficiency of all the other local applications I then tried. Its effects were notorious to all who saw it employed, and I now, as I ought to have done twenty years sooner, recommend its use to general notice, in cases of acute migratory inflammation, and especially when it attacks the joints, testicle, or sclerotic coat of the eye.

The infusion as directed by the London Pharmacopœia is sufficiently strong, and in many cases it is well to rub the part with eau de Cologne after the use of the tobacco.—*Med.-Chir. Transactions.*

New Epidemic in France.—A disease of a formidable nature, and consisting of profuse sweating, with miliary eruption and extreme debility, has manifested itself in some parts of France, and, notwithstanding the presence of cholera, has excited so much attention, that a medical commission has been despatched from Paris, to the infected districts, to examine into its nature.

The Cholera.—The disease appears to have nearly disappeared in Montreal and Quebec. Total number of cases in the latter city, 894; deaths, 562. In Albany, on the 25th ult., new cases, 29: 18 severe; deaths, 7. On the 27th, new cases, 32: 20 severe; deaths, 7. At Philadelphia, one case of malignant cholera was reported on the 24th. One or more cases have also occurred in Bristol and Newport, R. I.; New Brunswick and Elizabethtown, N. J.; and at Hudson, Troy, Buffalo, and Greenbush, N. Y.

The letter from Dr. C., and several other valuable communications, are unavoidably deferred till our next.

Whole number of deaths in Boston for the week ending July 27, 23. Males, 9—Females, 14. Still-born, 2.

Of typhus fever, 2—throat distemper, 2—teething, 1—consumption, 4—intemperance, 1—dropsy on the brain, 1—childbed, 2—infantile, 1—measles, 2—scarlet fever, 1—inflammation in the bowels, 1—debility, 1—suicide, 1—unknown, 3.

ADVERTISEMENTS.

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VOL. VI.] WEDNESDAY, AUGUST 8, 1832. [NO. 26.

BARON CUVIER'S LAST SICKNESS.

THE last illness and death of Cuvier were attended with some very remarkable circumstances. On Monday, the 7th instant, he complained to his friend, M. Duméril, for the first time, of an uneasiness at his stomach, with looseness of the bowels, for which he was advised to keep his room next day, and to take some remedies suited to the circumstances. This he declined doing, because he had to preside at a council of state, a duty which he accordingly discharged. On his return, he met with the physician who usually attended him, M. Allard, and whom he took the opportunity of consulting. Cuvier had experienced at breakfast, that morning, a considerable difficulty in swallowing ; in consequence of which, M. Allard thought it necessary to advise the application of leeches to the anus. On returning home, however, his patient betook himself to his scientific labors, in which he remained engaged from two o'clock in the afternoon till half past five, when he was summoned to dinner. It was only then that he informed Madame Cuvier of M. Allard's having prescribed for him, intimating his intention of postponing the application of the leeches till his usual bed time—being at that moment, he said, more inclined for his repast. He sat down accordingly to dinner, but scarcely had been helped to some soup, ere he found that he was almost entirely unable to swallow. M. Allard was now sent for, as were MM. Duméril and Orfila. Leeches were applied in the evening, and in the course of the night he was bled from the arm ; but neither of these means was followed by any relief. Next day, MM. Dupuytren, Biett, and Koreff, were added to the attendants, and joined them in consultation. On Wednesday morning, it was resolved to administer an emetic, and four grains of tartarised antimony were dissolved in some spoonful of water ; but only a small portion of this could be got down. At this time, M. Cuvier had no appearance of illness ; he had no uneasiness, and no fever, but merely complained of extreme difficulty of swallowing, and of a gradually increasing inability to move the upper extremities, without there being the slightest perceptible change in these parts. The emetic did not act upwards, but produced several evacuations from the bowels. Twenty-four grains of ipecac. were afterwards injected into the stomach by M. Dupuytren, by which, however, no effect was produced ; and some hours afterwards, four successive doses, of twelve grains each, were similarly introduced,

but without any emetic effect resulting. The difficulty of moving the hands and arms went on gradually augmenting. Leeches to the upper part of the spinal column were now recommended, and next day (Thursday) cupping-glasses were applied along the back, but scarcely more than four ounces of blood were obtained. The upper extremities were now perceived to be slightly tumefied. Various plans were suggested in consultation, particularly the actual cautery, and blistering to the spine—the latter of which only was adopted, and even that, it would appear, but imperfectly. By Sunday the paralysis had extended, and in fact had become general, implicating the respiratory muscles; the lower extremities were absolutely motionless, and the stomach and bowels seemed to have ceased to perform their functions. M. Cuvier, however, retained his mental faculties unimpaired, and was fully aware of the danger of his situation—constantly expressing his regret at leaving so many works unfinished. “This hand,” said he repeatedly, “this hand, which has performed so many dissections, and committed so many of the results to paper, is henceforth condemned to inactivity.” Afterwards, as the symptoms continued to increase, he spoke, not merely of the loss of his limb, but of his death, and expressed, with deep regret, the necessity of leaving his *Comparative Anatomy* incomplete: in fact, he was engaged in remodeling this great work at the time he was struck with the fatal paralysis. On Sunday, at five, P. M., he spoke with difficulty, and only to express the general uneasiness which he felt. M. Duméril, when he quitted him, remarked that he would see him again early next morning; but Cuvier shook his head in such a manner as to express his belief that they should meet no more. In a few minutes after this interview, he began to sink, and expired between ten and eleven at night.

The general impression among the medical attendants was, that M. Cuvier's complaint depended upon some lesion of the spinal marrow, attended with pressure; and this expectation was the more probable, as it appears that their patient, not long before his death, had met with a fall, in which he had strained himself in the effort to recover his balance. The body was examined on the 15th, when the following appearances presented themselves. The general aspect externally remained unchanged, except that putrefaction had already made some progress; the cranium was very large; the vertex flattened, and almost quadrilateral; the thickness of the parietes, particularly at the frontal sinuses, was very great; the right side projected more than the left, and the same was observed of the parietals; the occiput was also fully developed; the inner table of the frontal bone exhibited three nipple-like projections; the convolutions of the brain were very numerous and voluminous. The lateral ventricles were very much dilated, and contained a small quantity of reddish serum; the membrane lining them was slightly rugose; there were some calcareous depositions in the pineal gland; the origins of the nerves were sound, and the whole of the encephalon and spinal cord were without any alteration in texture, color, or form. The œsophagus presented no appearance of disease, and all the viscera were sound. The *processus dentatus* was unusually large, and there existed a sort of bony projection at each point of junction between the

vertebræ, along the whole anterior surface of the column. These, however, must have been long present, and cannot be regarded as connected with his death: indeed, they were supposed by the reporters, and with some probability, to be connected with the peculiar habits and gait of M. Cuvier. The entire absence of any post mortem appearance calculated to explain the phenomena attending M. Cuvier's death, has led some—particularly Magendie—to hazard the opinion that his illness was, in fact, but a modification of cholera, indicated in the first instance by diarrhœa, and subsequently by nervous depression, the intellect remaining unimpaired.

Sœmmering, as the extreme weights of the healthy human brain, gives two pounds five ounces and a half, and three pounds three ounces and three quarters—the great majority being intermediate between these two; and M. Bérard, in some recent examinations, has arrived at nearly the same results. But the brain of M. Cuvier weighed three pounds ten ounces four drachms and a half, being much above the extreme weight mentioned by Sœmmering. Besides, the cerebellum and tuber annulare were compared with those of a male adult, and found to exceed them in weight only by a drachm and a half; so that, in M. Cuvier, the excess was almost wholly confined to the extraordinary development of the anterior lobes; that is, to the organ of the intellectual faculties. Again: according to M. Desmoulins, one of the characters of the brain, with which superiority of intellect seems to be associated, is great extent of surface, resulting from the number and depth of the convolutions; so that a great expansion of this kind might be comprehended within a cranium of moderate dimensions. Viewed in this light, the brain of M. Cuvier was even more remarkable than with respect to its size—none of the distinguished anatomists, who were present at the examination, having ever witnessed convolutions so numerous, or anfractuositities between them so profound. It was at the upper and anterior part of the brain that this conformation was most strikingly developed.—*Medical Gazette*.

THE NEW YORK PRIZE ESSAY.

Further Remarks on the New York Prize Essay, in a Letter to the Editor of the Boston Medical and Surgical Journal.

SIR,—I beg leave to tender you my thanks for the general typographical accuracy with which my communications have appeared in your interesting periodical, and could wish them more worthy of the public regard. There is, however, one small error in my remarks, which appeared in your Journal of the 11th instant (p. 350), which I deemed of sufficient importance to notice. The error is of one letter only—a *v* for an *r*. *Pleno rivo* is printed *pleno vivo*. This term occurs in one of my extracts from the Prize Essay of the *New York State Medical Society*, in which I aimed at perfect correctness.

Pleno rivo—literally a *full river*—is probably meant, by the writer of the Essay, for a *full stream*. The author, however, and his elevated

patrons, are entitled to the privilege of having their terms literally construed, if they choose. *A full river of blood*, drawn from a patient in typhus fever, will perhaps best suit their ideas of its treatment, which is, at any rate, that of drawing blood, either by venesection or by arteriotomy, till faintness is produced, which is to be aided and kept up by large enemata and drastic cathartics. For the latter purpose, calomel and jalap are repeatedly recommended.

It will not, I hope, be deemed improper for me, in this place, to make some further remarks upon this very extraordinary Essay.

The views and doctrines of prize publications are given to the public with far more than ordinary tokens of notoriety and consideration. They are ushered into the world as containing not only the very deliberate sentiments of the writer himself, but also of the Committee, College, or Society, which approves and patronises them. They are the results of successful competition, and the productions upon which rewards, both honorary and pecuniary, are bestowed. When published, they become public property, and, if correct, ought to be received and regarded as grand luminaries, placed aloft to guide the benighted, to instruct the inquiring, and to confirm the doubtful. And never—never, in any case, ought they to pass unheeded, or to roll down the stream of time unnoticed; especially when they are upon topics so immensely—I might have said infinitely—important, as those of the lives and health of the community. Indeed, they ought to stand as enduring monuments and mementos of the periods of the world in which they issue, and as marks of the sentiments, opinions, and doctrines, of particular eras, particular places, schools, and celebrated men; and all this, because we are to suppose their principles fixed on by the wise, discerning, and philosophic, after deliberation the most mature, and scrutiny the most severe. Shall this pamphlet, then, pass without animadversion, which makes HIPPOCRATES, and the most celebrated names of antiquity—as well as those of Huxham, and Cullen, and Pringle, and Rush, and Good, and Warren, and North, and Todd, and Miner, and Tully—a parcel of dunces? which asserts the innocent nature of the most nauseous animal putrefaction, and that cleanliness and ventilation are of no utility in preventing fevers? that the best mode of treating typhus, in all its forms, instead of being that of moderately evacuating or mildly strengthening the feeble patient, is to bleed *pleno rivo*, and to purge with drastics *ad infinitum*?

How very discrepant are the notions of the *prize writer* and his patrons, from the philosophers of the profession above enumerated, as well as from those, although not of the medical vocation, who yet had minds of sufficient magnitude to throw a gleam of light upon every subject on which they glanced! Lord Bacon, for instance, ranks the smell of a prison, where the inmates have been long kept in a state of filth and impurity, as next to the *virus* of the plague. And Erasmus ascribes the spreading and mortality of the plague itself, to the want of cleanliness, and to animal filth “within doors.” It would indeed appear, that, in the time of Erasmus, the inhabitants of London, and the English in general, were the most slovenly people in Europe; whereas they are now the most cleanly. And to this last national virtue,

their immunity from the plague, and the inconsiderable progress of the cholera, may be attributed.

I had almost thrown down my pen in disgust, when I recollected that I was advocating what was so universally assented to by the wise, the good, the scientific, the philosophic, the moral and religious, of all ages and of all nations. But I recollected again, that I was actually controverting a doctrine sanctioned by the *New York State Medical Society!* and that so lately as 1828!

What an immense deal of pains have Philadelphia, New York, Boston, and our other cities, been taking, to clear away exuviae from their streets, for nothing at all! Why had they not referred to this prize pamphlet of the magnanimous *STATE Society*, which tells us, after quoting some instances of escape from being poisoned to death by stench and putridity, that "these facts are considered sufficient to prove that fever of no kind or description ever arises from animal putrefaction" [p. 50]; and that ventilation does not contribute to health, is proved by its opposite not producing typhus fever, nor any other form of disease? To establish these points, the case of the Russian boor, who lives with his family in a hut under ground, which is made tight by caulking with moss, and which for six months is not ventilated, is adduced as triumphant proof.* But the writer shall here again speak for himself. He says—"From these facts, we learn that the effluvia, arising from the crowding of healthy persons into close, unventilated situations, in cold countries at least, is not productive of fever; and, upon examination, we shall find that the same cause is equally innocuous as regards the production of typhus fever in warmer regions of the globe" [p. 52].

Of sweating, which is considered, by all who know anything of spotted and typhus fevers, to be of the utmost importance, and by some as the *ancora sacra*—a remedy, indeed, which has given celebrity to the name which first introduced it, and a process which arrested the mortality of those fevers, which before were sweeping to the grave almost every individual who was subjected to an attack; of sweating, then, the prize writer speaks in the following terms:—"This destructive and irrational practice is fortunately now almost exploded at the present time; and physicians now, with the exception of using a few antimonials, generally leave it to nature, who effects it best in her own way" [p. 8].

As might have been expected, bleeding is already adopted, by those who bleed in typhoid diseases, even in the cholera itself! Broussais bled Casimer Perrier with leeches, and Mr. Grimm, of New York, was subjected to phlebotomy: both are dead. Dr. Nelson also tells us of its having been adopted in Montreal, but with such ill success as to confound its most strenuous advocates. From late accounts from Canada, it appears that typhus fever there follows the cholera, as a modification of that epidemic, but as a less dangerous disease. Should, however, the lancet be introduced into its treatment, it may be easily made equally mortal. The inconsiderable mortality which attended the spotted and typhus fever at New London, the present year, may be attributed to the unanimity of the physicians there, headed by DR. NORTH, in adopting

* It ought to be here recollected, that filth will not poison bodies made up of that material.

an appropriate mode of treatment, viz. : a supporting, exciting, stimulating, and sudorific plan, and in judiciously abstaining from bloodletting and all other debilitating remedies.

As I have stated that the prize pamphlet will not admit animal putrefaction, nor animal effluvia, nor want of ventilation, to produce typhus fever, it may be inquired, by those who have not seen the Essay, to what cause the writer does impute it? I answer: to the same vegetable miasm which produces intermittent and remittent fevers.

Now, that he is here again egregiously incorrect, is fully proved by the late PROFESSOR SMITH, of New Haven. DR. SMITH, in his "Practical Essay on Typhus Fever," says that "It has been suggested that typhus occasionally arises from marsh miasmata—the same which, under certain circumstances, produces intermitting and remitting fevers. A fact, which I shall here advance, is strongly opposed to this hypothesis. On the Connecticut River, from Northampton, in Massachusetts, to its source, a distance of more than two hundred miles from north to south, and on all its tributary streams on both sides, for an hundred miles in width, there has been no instance of any person's having contracted the intermitting fever, from the first settlement of the country to the present time; and yet the typhus fever has prevailed more or less in every township within that tract of country" [p. 15]. Dr. Smith's Essay was published in 1824.

I shall conclude with a few remarks on bloodletting. This operation in congestive diseases is at best a hazardous experiment.

In cholera, spotted fever, and pneumonia typhoides, the blood leaves the smaller vessels, and, from debility, quits the capillary system—weakness becoming first apparent and alarming in the weak and small vessels. The veins are flat, and the pulse frequent and feeble; whilst the large vessels near the heart, with the heart itself, its auricles and ventricles, as well as the pulmonary system, are engorged with a superabundance of the vital fluid. Now, could bloodletting reach this engorgement, it would, to be sure, answer *one* remedial purpose. But will it do it? I fear not. By letting blood in such cases, you stand the very great chance of doing a certain injury for an uncertain good. You with absolute certainty draw blood from a vein where more is needed, with the great hazard of not relieving the parts which are suffering from congestion. The mechanical or hydraulic principle upon which your operation of phlebotomy is founded, cannot, with any degree of certainty, be relied on. You bleed, *not* because there is too much blood in the vein or artery which you open, but because there is *too little there*, but *too much* somewhere else. But why is there too much blood in the heart, lungs, and large vessels? There are at least three reasons or causes for this:—1st, the brain acts feebly on the heart; 2d, the heart acts feebly on the blood; 3d, the minute vessels are affected with debility and consequent spasm; and a 4th reason may be, that the pores are obstructed. The pains in cholera, spotted fever, and pneumonia typhoides, are all spasmodic. They are relieved by opiates, by ammonia, by ether, by oil of amber, by camphor, by warmth, and other antispasmodic remedies; they are increased by cold, by depletion, and by whatever debilitates the system. To relieve congestion, therefore, we remove the

spasm, we relax the pores, we excite the stomach, the brain, the heart, the arteries, the nerves, and the lungs, by suitable diffusible stimulants. We thus enable the heart to push forward its load of *black blood* into the small empty arteries and collapsed veins; we oxygenate it in the lungs, by the admission of pure air, and by well ventilated, but not too cool, apartments. We thus increase the energy of the whole debilitated system, and quiet the distress, and warm the surface, and raise the pulse, and brighten the eye, and procure sleep, and bring comfort and hope to the afflicted patient and his weeping friends. Our methods of treatment, in fact, reverently to use a sacred metaphor, are to draw with the cords of love, rather than to drive with bolts of thunder.

Still, we fully agree, that in cases of croup, in genuine pneumonia, and other inflammatory diseases, which are indicated by a full, tense pulse, by prominent veins, and by a dense fibre, we bring the same relief, and the same cheering results, to the patient and his friends, by the free use of leeches or lancets, and the liberal abstraction of blood.

There is, however, a small, depressed pulse, with a tense fibre, which admits of some bloodletting; and the same remedy is appropriate, sometimes, to a greater extent, in some cases of mania, wherein the pulse is natural, but in which there is a morbid strength in the muscles, an insensibility to cold, and no diminution of appetite. Still, the general system is in a very different state, in such instances, from that of cholera and other typhoid diseases. In the latter, there is a soft, velvet-like feeling of all the muscular parts; a soft and easily-compressible pulse; a shrinking of the features, and a frequency of pulsations, which absolutely prohibit the lancet.—Yours, &c.

Lebanon, Ct. July 23d, 1832.

JOSEPH COMSTOCK.

CHOLERA IN NEW YORK.

On the Symptoms of Cholera in New York; with some Remarks on the Management of the Disease. Read before the Boston Medical Society July 23, 1832, by JOHN WARE, M. D.; and communicated for the Boston Medical and Surgical Journal by the Publishing Committee.

THE object of this communication is to give some notice of the symptoms of Cholera, as they were presented to the writer during a short visit to the city of New York, since its prevalence there, and some suggestions with regard to the management of the disease.

A few days' opportunity only of observing so formidable a malady, may be thought hardly sufficient to justify an individual in offering anything concerning it to his medical brethren or to the public. But it is to be recollected, that in the case of a new disease, we are all obliged to approach it in a state of at least partial ignorance; he, therefore, who knows but little from actual experience, may be able to impart something. His labors are still more likely to be useful in preparing others for its attack, if it present a variety in its aspect, as it appears in different places; if for instance it differ in Canada and New York, from the description we have had given of it in Asia and in Europe.

This appeared to be the case. At least the impression made by the inspection of patients laboring under Cholera, was different from what the usual descriptions given of it had prepared me to expect. Not that there was any variation in the symptoms or course of the disease, which could for a moment throw any doubt on its identity ; but there was a very considerable variation in the relative prominence of the phenomena.

So familiar have we become with accounts of Cholera, that, instead of describing the disease, as it presented itself in detail, it will be only necessary to refer to those symptoms concerning which some particular remark occurs. The most universal of the symptoms, were the deadly coldness of the whole surface of the body, and the soaked, sodden and shriveled appearance of the hands and feet. Generally, also, there was a bluish or livid tinge of the skin of these parts, particularly of the extremities of the fingers beneath the nails. The hand in some instances resembled that of a person who had been working in a black dye. The blue or dark color of the face and of the rest of the body was not very common ; much less so, according to the information of those who had visited Montreal, than it had been there. Still, a few patients were seen so dark, as not to be readily distinguished, across the ward in which they laid, from mulattoes. The cold tongue, which has been described as so strikingly characteristic in some places, was noticed in but a small proportion of cases. It had generally a slight white fur. The pulse, though commonly very small and obscure, was not so frequently extinct at an early period of the stage of collapse as was expected ; and in some cases it was found quite distinct and of good volume, at not a very long period before death.

The vomiting and purging were less violent and frequent than had been expected. It was rare to witness more than one or two patients suffering from either, during a visit to a hospital containing twenty or thirty. They seemed to take place chiefly in the earliest period of the case, and in some, never existed in any violent degree. One patient was seen at 11, A. M. whose bowels, according to his report, had been in a regular state the day before, and who had only had, in the course of the morning, three or four discharges in the privy. He had not vomited at all ; yet he had scarcely any pulse—his skin and tongue were cold, and his hands and feet were affected by cramps. He had regarded himself as being well on rising in the morning.

Nearly all the subjects of the disease complained of cramps, or said that they had been afflicted by them when first seized. Still, very few were seen laboring under them so severely as to occasion any marked external demonstration of suffering. In nothing, indeed, did the cholera of New York differ more from the most common descriptions, than in the absence of any *indications* of great distress. It is true that a few seemed in much agony when vomiting, or undergoing spasm ; others complained bitterly of thirst and oppression, and burning at the stomach : but in general there was little complaint, and little disposition to notice external objects at all. The aspect of the patients was almost that of indifference, and unconcern as to the event in themselves and in others. They seemed like persons totally absorbed in their own sensations, although in sensations which were not of a very acute or distressing

character. They appeared often as if in a benumbed or stupefied state ; yet were without difficulty roused, and were at once perfectly sensible. Neither was there the sulkiness or irritability which has been said to appertain to patients with cholera. They answered questions readily and pleasantly. Though surrounded by medical men, and undergoing frequent examinations, I saw no instance of the manifestation of ill humor. Often, as soon as a physician approached the bedside, the tongue would be protruded and the arm stretched out.

In some cases the peculiar hollowness of the countenance, and the shrinking of the body and limbs, were strongly marked ; and in these, the aspect of the dying person was almost terrific. But these appearances were frequently wanting even in bad cases, and I am not aware that the countenance could have been always distinguished with certainty from that which is exhibited in many other severe and exhausting diseases. Neither did the voice vary essentially from that of patients with such diseases. The shrieks and cries of pain, which accompanied the vomiting and spasm, were perhaps a little more characteristic.

The respiration was not always accelerated ; but generally at least was performed without much action of the diaphragm, and was consequently attended by considerable heaving of the chest, and some labor. The chest seemed also as if imperfectly distended. In the act of death, this mode of respiration was continued ; it simply became less and less full, till it ceased altogether. Only one individual was noticed, in whom death took place with a kind of breathing like that so commonly witnessed ; viz. that accompanied by the rattling of mucus in the throat.

The excretion of urine was almost universally wanting during life ; and but little was found in the bodies of those who were examined, except, as was observed by a gentleman who had made many dissections, where the vomiting and purging had ceased for a long time before death.

From the dissections which were witnessed, and from the accounts of gentlemen* who had made a large number, it was inferred that the heart and large vessels did not generally contain any large quantity of blood. The heart was found sometimes empty, and sometimes all its cavities were moderately filled with blood. The arteries always contained black blood. On comparing blood found in the descending aorta with that contained in the corresponding part of the vena cava, that in the aorta resembled common venous blood, whilst that in the vein was still darker, thick and imperfectly coagulated, being nearly of the consistence and color of tar. In the cranium, there was an effusion of serum into the ventricles and at the base of the brain. The bloodvessels were quite full, but not unusually so. No morbid appearance was observed in the spinal nerve. The lungs were considerably congested. The stomach and small intestines exhibited a slight reddish tinge when held up to the light, but showed no signs of inflammation. The large intestines had a whiter or bleached appearance. There was no unusual dryness of the peritoneum. The whole canal was filled with the peculiar liquid matter which constitutes the evacuations in this disease. This was generally in large quantities, of a dirty greyish white color, though

* Dr. Morell, of the Bellevue Hospital, informed us, that of the first twenty fatal cases all were examined after death.

in one case tinged with green, and of a flocculent appearance ; sometimes quite thin, sometimes as thick as thin hasty pudding. It resembled gruel which has not been sufficiently boiled, or coagulated milk, the curd of which has been very finely broken up. Similar evacuations are occasionally witnessed in severe cases of common bowel complaints. Not a particle of fecal matter, or matter colored by bile, was noticed in any case, unless indeed the green color just mentioned was occasioned by the presence of bile. The gall bladder always contained bile, and its duct was pervious.

It is a matter of some interest and importance to determine whether we have any reason for believing, as some have done, that the spasmodic or malignant cholera is merely a more intense form of common cholera morbus, and is produced by an accumulation and concentration of the ordinary causes of the latter disease. That they have many symptoms in common, is not to be denied. It is quite certain that the common exciting causes of cholera morbus, such as irregularity and excess in eating or drinking, great fatigue and exposure, may also operate as exciting causes of spasmodic cholera. But, on the other hand, the course which the complaint takes, and the character of the symptoms in which it terminates, render it probable that there is, previous to these exciting causes, some peculiar predisposition of an unknown nature existing in the constitutions of the whole population where it prevails. Our common cholera, in some cases, reduces a patient to a state of great and irrecoverable exhaustion. It is accompanied by severe cramp, cold extremities, weak and fluttering pulse, ending in death. Yet, in a parallel state of exhaustion, is the aspect of the subject the same ? Do the peculiarities of complexion, the state of the extremities, and the character of the evacuations, correspond ? In common cholera, also, the exhaustion seems to be commensurate with, and to be produced by, the vomiting, purging and spasms ; in the spasmodic, on the contrary, there is no such correspondence. The most rapidly fatal cases are not always those in which the vomiting, purging and spasms have been the most violent. Some individuals fall into the state of collapse almost at once, after but a short continuance of the symptoms which usually precede it.

It is desirable also to determine whether it be possible, in the earlier stage of spasmodic cholera, to distinguish it with certainty from an attack of the ordinary disease ; to determine, for instance, in a place where cholera was not prevailing, that a case attended by vomiting, purging and spasms, was or was not the commencement of the epidemic. I fear the practitioner must wait for the symptoms attending the stage of collapse, before he can feel authorized to pronounce with certainty. In forming our judgment in such a case, we are to be chiefly governed by the state of the skin and pulse, and by the character of the evacuations. When the skin continues full of red blood, after considerable vomiting and purging ; when the pulse remains full and of tolerable volume, and the extremities warm ; when also the evacuations have a fecal or bilious appearance, one could hardly be mistaken in regarding the case as one of common cholera. Where, on the contrary, the pulse becomes quickly small and weak, with a dirty, dingy and bloodless skin, cool extremities and dejections of a light flocculent character, one would readily suspect

spasmodic cholera ; yet we surely see many such cases which the event, in ordinary seasons, proves to be nothing more than the common disease. Still, in such a case, if the malignant disease were either prevailing or expected, a physician could give no other than a doubtful opinion as to its character.

It did not appear, from such observation as was made of the effect of remedies, that any material variation was produced in the rate of mortality in cholera by the measures employed. This indeed seemed to be the general impression of those engaged in the management of the disease. And, it may be asked, has not this been the result, wherever it has prevailed, so far as we can judge from the reports of cases and deaths which we find in various publications ? We have had, it is true, many flattering recommendations of peculiar plans of treatment, and general statements of their efficacy ; but does not the general uniformity of the returns of dead and convalescent, in different places, satisfactorily show, that the good effects of remedies have chiefly existed in the imaginations of those who have employed them ? The probability is, that this epidemic, like all others, varies in severity in different places. This accounts for the apparently greater success of that method of treatment which happens to have been employed where the disease has been mild. So, too, when it first makes its appearance in a new spot, it seizes on the worst constitutions, and on persons most strongly predisposed ; and hence its great and appalling mortality. After a while it attacks individuals of better constitutions, and who are less strongly predisposed ; these make a more determined resistance to the disease, and recover perhaps in a greater proportion. Hence, towards the close of the epidemic, the cases seem to be more tractable, and to be more under the influence of remedies.

How can we, except by means of some such explanation as this, account for the apparent success which has attended modes of management the most opposite in their character, unless we believe the statements which are made to be wholly without real foundation, and to have had their origin in the want of accurate observation, the self deception, or the wilful misstatement, of their authors ? Many physicians are loose observers, many are loose reporters, and some are both. I know not in what other manner we can account for the assertion of Broussais, that he loses but one patient out of thirty, while all his medical brethren are losing half, or very near it. One might expect, if his statement were actually true, that public opinion would soon force the whole faculty to the adoption of a method of management so successful ; and that a Paris mob might imagine the physicians of all the hospitals, except that of the Val de Grace, engaged in the combination to poison the people—since in the latter the patients all came out alive, and in the former all dead.

It is unquestionably a humiliating confession to the medical art, that fifteen years' experience has not taught us any mode of arresting the destroying progress of this disease. Yet, if it be true, it is better that we should know and acknowledge it ; since then, instead of being distracted by the claims of opposite and contradictory statements, we shall direct our attention to the devising of new methods of treatment, or at least to means of prevention. The plague, which was once the scourge of Europe, is no more within the control of medicine, than it was centuries ago ; but it has been banished from countries which it once visited, by preventive measures. The same is true of yellow fever, and the same may be found true of cholera.

According to this view of the subject, the treatment of cholera cannot

yet be reduced to any fixed rules, but must be, in the main, tentative or experimental. It is not the intention of the writer, in speaking of means of treatment, to offer any opinion as to their probable efficacy, but merely to direct the attention to such as appear worthy of a *very thorough* trial; for it is obvious that only the *very thorough* trial of a remedy gives it any fair chance of success in a disease like this.

We may also remark, that the rapid course taken by this disease does not allow us to place dependence on remedies which require time to produce their effect. Our whole range is confined to a very few hours. Except, therefore, in the premonitory stage, we must confine ourselves to means which operate almost immediately.

We should also bear it in mind, in treating cholera, that, in all cases of violent action or of extreme want of action, the susceptibility of organs to the influence of remedies is either very much exalted, or very much diminished; generally the latter. Thus in fainting from excessive hemorrhage, great quantities of stimulus are required to produce an effect, and they must be frequently repeated in order to keep up the effect. Large doses of laudanum are also borne without the production of its usual operation. The same is true of any violent pain, and of excessive secretions. The power of the medicine given, is neutralized by the disease. Thus a man with diabetes will bear twenty or thirty grains of opium in a day; and one with severe colic, two or three hundred drops of laudanum in a few hours.

It should also be premised, that the remarks made with regard to treatment refer to the confirmed state of the disease, that, viz. in which its peculiar character is fully developed. There is a premonitory or preparatory stage, in which the state of the system and the symptoms of disease are different, and require different management. It is not, however, in this stage that patients are generally seen in hospitals, nor usually in private practice; but it is in this stage that many physicians are so sanguine with regard to the effects of remedies.

Whatever be the variety of internal means recommended by different practitioners, they almost uniformly agree in the propriety of external warmth and stimulus; and in all diseases attended by coldness and want of action in the surface and extremities, the restoration of warmth and circulation is one of the first objects which suggests itself. In cholera, this is very strongly called for, since not only are the external parts cold and inactive, but, as some assert, the internal also. More proof, however, is required of the coldness of the internal organs than has yet been given: there are circumstances which render it doubtful, and it is a point which should be carefully investigated. Still, no doubt can exist of the coldness of a considerable part of the mass of the body.

Now it is very true, that this coldness is one of the consequences of the morbid condition on which the disease depends, and not the morbid condition itself, and that removing this effect will not prove a remedy for its cause. Yet it is also true, that many of the secondary effects produced by disease, are an obstacle to the removal of the disease, and obstruct the salutary efforts of nature or the influence of remedies. We often assist nature, and art also, in the struggle with the primary cause of disease, if we can artificially remove or suspend these secondary effects. Thus we assist the cure of dyspepsia by neutralizing the acid generated in the stomach as a consequence of this disease. So, too, where the system is sinking from a poison which operates by a suspension of that influence of the brain, which is necessary to respiration, if artificial

respiration be kept up for a sufficient time, the effect of the poison ceases, and life is preserved. Something like this may be true with regard to the power of maintaining the animal heat in cholera. The reduction of the temperature of a large portion of the body and circulating fluids, for several hours, would alone be sufficient to cause death, were the system otherwise capable of struggling with and overcoming that internal state in which the disease consists. If a man, with the ordinary power of maintaining animal heat, were exposed to a degree of cold which should reduce his temperature to 75 degrees, this reduction alone would soon destroy life. This often happens in cases of shipwreck and exposure at sea, where persons are chilled to death by immersion for a long time in water at a low temperature. The patient with cholera is placed in circumstances somewhat similar. His power of resisting cold being lost, he is cooled down by an ordinary atmosphere as much as a healthy man by the low temperature of the ocean.

A resemblance has been supposed to exist between the patient with cholera and an individual frozen by exposure, and it has been recommended to employ in the former the same treatment as in the latter case. But the resemblance is not so close as that which has been already suggested. In persons frost-bitten, the external parts are actually frozen; or at any rate reduced to a much lower temperature than those cholera patients, whilst the internal parts retain their powers of resistance. This at least is true of recoverable cases. Although the temperature to which the surface is reduced is much lower, yet the whole body has not been equally cooled, and the heat providing powers not equally exhausted. No one would think of dashing cold water, or rubbing melting snow, over the body of a man chilled by immersion in cold water, to restore his animal heat; neither is it probable that this measure would be attended by any beneficial result in cholera.

We may regard it, then, as an essential part of the treatment of cholera, whatever means we may otherwise employ, that warmth of the body should be restored by external heat, and its activity promoted by external stimulants. It is by no means a matter of small importance by what agents we effect this. Let us recollect what we are to accomplish, viz. to warm through a solid mass of flesh. In order to impart heat, we must in the first place surround the body with bad conductors, which will retain the heat which is communicated to it, viz. with blankets, rugs or comforters. We must, in the next place, apply, within these, substances which contain a good deal of heat, and which will give it out readily to the body; such as bottles of hot water, hot bricks, billets of wood, bags of sand, &c. &c. We may see at once how insufficient air baths must be, as indeed they have been found. Air is a slow conductor, and contains but little heat. How long would it take to raise the temperature of a dead body twenty degrees in an air bath? I suspect many hours. Hot air may warm the skin readily; but in cholera we must go deeper than this—we cannot rely on the heat-making power of the system to aid us in our endeavors—we must use means which shall extend as far as the coldness extends. Neither can we expect any amount of external covering alone to raise the temperature of the body. Blankets assist in the accumulation of heat, when the body is capable of generating it; but they in no degree tend to warm it, when it has not this power. They could never warm a drowned man who had ceased to breathe.

The consideration that the heat-producing power is suspended in the cholera patient, should lead us to be cautious in relaxing the application

of external warmth. It is not sufficient that the patient feels warm ; the means should be persevered in, till a decided reaction has taken place, indicated by the state of the pulse, countenance and respiration, and should even then be cautiously relaxed. Neither should these measures be delayed till the patient is actually cold, when the stage of collapse is coming on. The loss of heat should, as much as possible, be prevented, by a great abundance at least of external covering, if not the application of absolute heat.

At the same time that the external warmth is thus provided for, it is important that the means used should not in some measure defeat their own object, by depriving the patient of fresh and cool air. Any imperfection of respiration, essentially impedes the keeping up of the animal temperature ; and both foul air and warm air, are productive of such imperfection. We should be cautious, therefore, that the rooms of cholera patients be not unduly heated, and that an abundance of fresh air should always have access to them.

External stimulation seems indicated, as next in importance to external warmth. This might be effected in various ways ; but none seems more speedy and certain in its operation, than the poultice, or plaster of flour of mustard and vinegar. How extensively it might be proper to apply this, experience only can teach us. Few, even of cholera patients, are for any long time insensible to its effects.

A powerful, and, it is believed, a new method of exciting reaction by external application, has been adopted by Drs. Lee and Roe, at one of the New York Hospitals, and, as has been stated, with remarkable success. It consists in the friction of the whole surface of the body, when in the state of collapse, with an ointment, composed of mercurial ointment, camphor and capsicum. Very little else is done, and nothing but a small quantity of drink, or of ice, given internally. We shall no doubt derive, ere long, a full account of the particulars of this mode of practice, and of the success which has attended it, from these enterprising physicians themselves ; and it would be premature to give, at the present time, anything more than this general statement. It is certainly, however, one of the measures which deserve a thorough trial from those engaged in the treatment of cholera.

But little can be said of internal remedies. The general impression seems to be, both at New York and in Canada, that in the confirmed disease, nothing has as yet produced any very decidedly favorable effect, although all methods of practice have been tried ; the calomel practice, the bleeding practice, the ultra-stimulating practice of spotted fever, the moderately stimulating practice, the camphor practice, and the ice practice. Still, we are hardly ready to give up in despair, and may inquire, whether it may not still be worth while to go over the ground again with some of these measures, unless we should be so happy as to escape a visit from this disease. The measures to which it might be desirable to give this trial, would be,—

1. The highly stimulating practice of Drs. Miner and North, by means of immense quantities of opium, brandy, capsicum and essential oils. So far as tried, this course has been said to be attended with unfavorable effects. Might it not bear a fairer chance of success, if combined with the injection of a saline solution into the veins ? It may be, that these stimuli fail of their accustomed effect, from the want of a sufficient amount of circulating fluid.

2. The mercurial practice, carried to the greatest possible extent, both

internally and externally. Dr. Chisholm administered immense quantities of mercury to his yellow fever patients ; one patient having used over 5000 grains, and many having actually taken more than a thousand grains by the mouth. We might do the same in bad cases of cholera, at least without danger ; and besides the administration of calomel by the mouth, and frictions, we might also make use of mercurial fumigations continued for a great length of time, a whole day for instance, which would not only act mercurially, but would also assist in raising, or at least in maintaining when raised, the animal heat.

3. The administration of ice internally, according to the method of Broussais. Though not placing unqualified reliance on the accounts given by this teacher of his practice, and believing him to be much wanting either in accuracy or in sincerity and good faith, the peculiar circumstances in which we are placed with regard to the management of cholera, renders it our duty to employ all those means for which very decided success has been claimed.

4. Bleeding from the general circulation. It is remarkable that no remedy has been more strongly recommended than this, in works on cholera as it has elsewhere prevailed ; and yet that no decided success has followed its employment in this country, so far as we have any evidence. Still we are led to believe, such is the authority on which it has been recommended, that there may be states of the disease in which it will be followed with advantage.

5. Injection of large quantities of warm water, or of a warm saline solution, into the veins. So far as we have been informed, the immediate effect of this measure has been to restore the circulation and warmth of the patient ; in fact, to rouse him from the state of collapse. Of its final success, we know less. It is remarkable that, of all the cases mentioned in a late communication in an English Journal, and republished in the Boston Medical and Surgical Journal, we are not told of the result of a single case. It was employed in the case of a patient at the Bellevue Almshouse, at New York, by Drs. Morell and Baker, and twenty-four ounces of warm water were introduced into the veins. The immediate effect was highly promising, but relapse and death ultimately took place. We have been since informed that an instance of complete recovery has followed the saline injection, in the Crosby Street Hospital, under the care of Drs. Rhinelander and Dekay. Measures which afford even a temporary revival should, in this disease, be seized on with eagerness. If therefore the injection into the veins proves to be as effectual in the promotion of a temporary reaction as has been asserted, it may answer a valuable purpose by prolonging life, and thus affording time for the operation of other remedies, even if it should not be sufficient for the preservation of the patient. Like external heat, therefore, its employment should be cautiously combined with that of all the other remedies in different cases ; since we may, perhaps, arrive at that success from the judicious combination of means, which we seek in vain from perseverance in any single course.

Sickness at the State Prison in Charlestown.—A disease broke out very suddenly among the convicts at this place on Sunday afternoon last. We copy the following from the Boston Transcript of Monday evening.

Our correspondent of the Bunker Hill Aurora writes us under date 1 o'clock, P. M. :

"A sickness commenced at the State Prison in this town yesterday afternoon. At half past 12 o'clock, last night, 25 had been attacked severely, with vomiting and purging, but no spasms of the extremities. The number of cases has continued to increase, and there are now 104 sick—many of them, however, are in a state of convalescence. The patient most sick is pronounced to be improving. There have been no DEATHS; and the general opinion of our own and of the Boston physicians appears to be, that the disease is NOT the *Asiatic Cholera*. A Board of consulting physicians has been appointed, and also a committee of physicians to analyze the food and drink taken by the convicts yesterday."

The Inspectors of the prison visited it this morning, in company with the consulting and other physicians of the City and Charlestown. We learn that the physicians are of opinion that no case exists that is likely, from present appearances, to terminate fatally.

The Cholera.—The disease, in the city of New York, has much abated. The number of new cases and deaths on each day, since our last report, has gradually diminished, and on Friday last the former was 90, and the latter 24; on Saturday, cases 88—deaths 30. Drs. Arnold, Nelson, and Vought, have died of cholera in New York.—In Albany, the epidemic appears to have increased. On the 28th ult. there were 28 new cases and 18 deaths; on the 29th, 35 cases and 17 deaths; on the 30th, 26 cases and 10 deaths.—In Brooklyn, L. I. on the 1st inst. 35 cases and 7 deaths.—Cases have occurred in many towns on and near the Hudson river.—In Philadelphia, whole number of cases from the 27th July, 144; deaths 60.—In Providence, R. I., 4 cases have occurred.—The disease has broken out in another family in Newport, R. I. Mr. Foster, the father of the family, buried the two young ladies who died of cholera ten days since. After the interment, he returned home and slept with a child, who was taken sick on the 3d inst. and died the next morning. A few hours after the death of the child, the mother was seized in a violent and suspicious manner, and expired before 10 o'clock on the 5th. Another child has been taken, but is now convalescent. A few days after the interment referred to, Mr. F. was himself attacked with violent vomiting, &c., but his disease rapidly yielded to medicine.—The disease has also appeared in Norfolk, Va.—Boston still continues healthy.

NOTICE.—It was the intention of the Publishers of the Medical Journal, at the request of a number of subscribers, to have discontinued the plan, adopted the last year, of dividing the work into two volumes annually, and to have restored the original form of a single volume in a year. The call for the numbers of this volume, however, has been so much greater than was anticipated, that many of them are entirely taken up, so as to render it impossible to furnish the volume entire to any future applicants. In consequence of this, the 6th volume will close with the present number, and the next will begin volume 7. The title page and index will be sent with a future number.—A continuance of the favors of the profession, both as subscribers and contributors to this work, is respectfully requested.

The important nature of the communication respecting the Cholera in New York, has induced us to give it an insertion, entire, to the exclusion of the editorial matter prepared for this number. The proposed remarks on the management of the premonitory symptoms of the disease, by the same writer, will be thankfully received.—The interesting Case by Dr. A. of N. H., and Prof. T.'s Experiments, together with other favors, will receive early attention.

Whole number of deaths in Boston for the week ending Aug. 4, 25. Males, 12—Females, 13. Still-born, 1.

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TWENTY-SIX WEEKLY NUMBERS.—AUGUST TO FEBRUARY, 1832-33.

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[NO. 1.]

EXPERIMENTS WITH NARCOTINE.*

Results of Experiments and Observations on Narcotine.† By WILLIAM TULLY, M.D. Professor of Materia Medica and Therapeutics in the Medical Institution of Yale College.

It is now many years since the discovery of that proximate principle of Opium, commonly called Narcotine, and even a considerable number since it has been known to be capable, in certain doses, of destroying brute animals, with the phenomena usually produced by a *narcotic*; and yet, I have no knowledge of any experiments or observations, hitherto, that can be considered as contributing much, if indeed anything, towards the determination of its medicinal powers upon the human subject. As far as I know, most of the late writers upon Materia Medica have concurred in ascribing all the remedial properties of Opium, to some salt of Morphine (another proximate principle of this drug), although it is admitted that Opium contains only about seven *per centum* of Morphine, and that a given quantity of Morphine is very far from being fifteen times as active as the same quantity of Opium, which ought to be the fact were Morphine its sole medicinal principle. According to the best observations, a given quantity of Morphine, instead of possessing fifteen times the activity of the same quantity of Opium, can at most be considered as possessing only about four times the activity, and perhaps there is room for just doubt whether there is even as much difference as this. Now it cannot be reasonably supposed that as much as seventy-two *per centum* of the Morphine is lost, in the process for its separation from Opium, and therefore it is altogether probable, *a priori*, that there is another principle, upon which its virtues may in part depend, more especially as the *Strychnos Nux-Vomica*, and several species of *Cinchona*,

* This article is republished, at the author's request, from the American Journal of Science for July. Some future numbers will contain a communication from Dr. Tully, prepared for this Journal, giving the details of these experiments.—*Ed. Bos. Jour.*

† It is well observed by a distinguished pharmacist, that the original ending in *ina*, (*ine* in English,) of the names of the vegetable salifiable bases, *must* be retained by physicians, to the exclusion of the termination in *a* simply, or *ia*, which has been recently adopted by the chemists, since the similarity of *Atropia* to *Atropa*—of *Daturia* to *Datura*—of *Brucia* to *Brucea*—of *Sanguinaria* to *Sanguinaria*—of *Cinchonia* to *Cinchona*—of *Gentiana* to *Gentiana*, etc. (the former of which are the present fashionable names for the active principles, and the latter the long established names for the vegetables from which they are obtained,) is altogether incompatible in prescription with the safety of patients. In all the editions of Magendie's Formulary—in Anthony Todd Thomson's Conspectus of the British Pharmacopœias—in Rennie's Supplement to the British and French Pharmacopœias—and (as has been said) in some of the latest Pharmacopœias of the continent of Europe, the termination in *ina* is retained. It was to be hoped that the responsibility of a useless change in nomenclature which, if adopted, would endanger so many lives, would never be assumed by any practitioner of medicine.

are now well known to contain two principles, possessing medicinal powers, similar in kind, and differing mainly in degree. Nothing else beside Narcotine, and another very doubtful substance called extractive matter, having, as is said, an intensely bitter taste, has yet been obtained from Opium, which can reasonably be suspected of contributing to its remedial effects.

For the purpose of ascertaining the precise powers of Narcotine, I have recently instituted a course of experiments, fourteen in number, upon healthy subjects it is true ;* but they have afforded results much more satisfactory, and without doubt much more analogous to what will be its effects in disease, than could possibly be obtained from experiments upon brute animals, and especially on those which have suffered the lesion of a ligature upon the œsophagus, immediately after being forced to swallow the agent whose powers are to be ascertained. As a detail of the experiments themselves would probably be incompatible with this Journal of Science, it will be reserved for some journal exclusively medical, and this communication will contain only a summary of the results obtained by the experiments in question, preceded by a few definitions, which are necessary to show the precise acceptations in which I employ the terms that will be applied to the several operations of the Narcotine.

In regard to the subjects of my experiments, it is not necessary to make any further statements, than barely to say that one was a young physician belonging to the State of Massachusetts—that another belonged to the State of New York—that two others belonged to Connecticut—and that I was myself the fifth subject. The four gentlemen, above mentioned, happened to be in New Haven together and at leisure for about a week, and they therefore volunteered their assistance in this business, entering into it with a degree of interest and zeal, which fully evinced that with them their profession is not viewed as a mere trade, to be followed only for the purpose of obtaining a support, or as a means of acquiring wealth, but is rather esteemed a liberal art, which they cultivate with much more generous and honorable motives.

It may be proper to state in this place, that I once made a series of experiments of the same sort, upon the Sulphate of Morphine ; and that a subsequent employment of that article, in my medical practice, has abundantly confirmed all the conclusions to which I then arrived—and, it is true, has led to some others, which could not be obtained upon a healthy subject. The results of my experiments upon the Sulphate of Morphine, and of my subsequent observations upon its operation in disease, will be subjoined to this paper on Narcotine, as in some instances my descriptions of the effects of each have necessarily been comparative.

Definitions.

A *narcotic* operation consists of four parts, stages, or degrees, viz.

1st. An *antirritant* stage, in which morbid irritability and irritation, and irritative action generally—morbid sensibility, restlessness and jac-

* It is altogether probable that the state of health may be taken as a medium state of susceptibility to the influence of this article. Under certain circumstances, much more may be required, and under certain other circumstances, much less, in order to produce given effects.

titation, (when connected with a non-phlogistic, or a positively atonic condition of the system,) are allayed ;

2d. An *anodyne* stage, in which pain, (when connected with a non-phlogistic, or a positively atonic condition of the system,) is relieved ;

3d. A *soporific* stage, in which sleep is produced ; and

4th. *Ultimate narcosis*, in which there is vertigo, headache, faintness, dimness or imperfection of vision, nausea and retching, epigastric uneasiness, small and irregular pulse, cold extremities, cold, clammy, or slippery sweats, delirium, stupor, convulsions (either common, epileptic, or tetanic), coma, and death. I am confident, from multiplied observations, that all *narcotics* are necessarily *stimulants*.

A state of prostration, (not exhaustion or debility, as is commonly, but erroneously supposed,) sometimes takes place, as an indirect effect, and rather a remote consequence, of a single dose of certain *narcotics*, too large for the susceptibility of the patient. This state is characterized by vertigo, nausea and vomiting on motion, and headache and faintness. Although these symptoms constitute a part of what I have described as *ultimate narcosis*, yet *ultimate narcosis* takes place while a patient is under the fullest operation of the *narcotic* agent, and this sort of prostration takes place only after all the direct effects of the *narcotic* agent have passed off, and it is rather a sequel than a direct effect of such an agent.

Different *narcotics* vary very much in the relative degree of each of these states or stages of a *narcotic* operation, which they respectively produce. Each state or stage of a pure *narcotic* operation, may be considered as a strictly sedative operation.

A *nervine* operation consists exclusively of four states, stages, or degrees, viz.

1st. A moderate antirritant stage, indicated by more or less relief of the same symptoms, that are obviated by the first degree of a *narcotic* operation. I do not suppose that the *antirritant* effects of a *nervine* are identical with the *antirritant* effects of a *narcotic* ;—they appear to constitute distinct sorts of *antirritant* effects ;

2d. The production of a peculiar calm, placid, and pleasurable sensation ;

3d. The production of a peculiar preternatural wakefulness ; and

4th. The production of more or less positive exhilaration, sometimes amounting even to delirium.

Different *nervines* also vary very much in the different relative degree of each of these states or stages of a *nervine* operation, which they respectively produce ; and many are altogether incapable of producing the fourth state, or stage, in any appreciable degree.

Pure *nervines* may be pushed to any extent whatever, within the capacity of the stomach to contain, without producing a single individual of those symptoms which I have detailed under the denomination of *ultimate narcosis*, and without the least increase of the vital energies generally, or of the strength of arterial action, which is a test always adequate to the perfect distinction of pure *nervines* from pure *narcotics*, and pure *stimulants*.

It is very common to confound a *nervine* operation with a *stimulant*

one ; but they are perfectly distinct. All the parts of a *nervine* operation (as I have just said) may be produced without any increase of the vital energies, and without any increase of the strength of arterial action. Indeed, I have very often seen the fullest *nervine* operation connected with an extreme reduction of all the vital energies, and with such a diminution of the strength of arterial action, that the pulse could scarcely be felt.

A *stimulant* operation consists exclusively in a quickly diffused, and transient increase of the vital energies generally, and a similar increase of the strength of arterial action. *Stimulants* usually diminish atonic morbid frequency of the pulse ; but, in perfect health, they usually (though not invariably) increase the frequency a few beats. *Stimulants* also commonly diminish, in a slight degree, both morbid irritability and irritation, and irritative action generally ; morbid sensibility and sensation ; morbid mobility, restlessness, and jactitation ; but they do this in a less degree even than the *nervines*, and still less than the efficient *narcotics*, and, as I think, doubtless in a manner different from either. Pure *stimulants* never produce the least trace of the last three states or stages of a *nervine* operation, nor a single symptom of what constitutes *ultimate narcosis*, with the occasional exception of nausea and vomiting, and perhaps headache, from the mere irritation of excessive doses or quantities ; nor do they ever produce any condition at all analogous to the secondary and rather remote sort of *prostration*, which, I have already mentioned, as sometimes the sequel of too large a single dose of certain *narcotics*. These circumstances afford absolute tests of pure stimulant powers.

It must be remarked that *narcotic* and *nervine* powers are principally exerted upon the nervous system, while *stimulant* powers are mainly exerted upon the sanguiferous system ; and, particularly, that the first three states or stages of a *narcotic* operation—the whole states or stages of a *nervine* operation—and a perfect stimulant operation, are by no means incompatible with each other. Thus, for example, a full and complete *antirritant* operation, as produced by Opium—a perfect *anodyne*, and a prominent *soporific* effect, may take place, at one and at the same time, with a most decided increase of the vital energies generally, and of the strength of arterial action ; and either or both of these operations may or may not be accompanied, at one and the same time, with all the states or stages of a *nervine* operation. *Sedative* effects, then, are by no means incompatible with *stimulant* effects. What is called *ultimate narcosis*, at least in any prominent degree, does in fact seem to be incompatible, either with positive *nervine* or *stimulant* effects.

The conjunction, at one and the same time, of full *stimulant* effects, with the three first states or stages of a *narcotic* operation, may be witnessed in a prominent degree by the use of moderate and uniform doses of Opium and Alcohol, at regular and short intervals, for a certain length of time, in any case to which both are appropriate remedies.

That *narcotic*, *nervine*, and *stimulant* operations, as here defined, are perfectly distinct operations, is abundantly proved by the fact that there are numerous articles which possess each individually, without any trace of the others ; and the circumstance that two of these groups of effects, or even the whole three, are not unfrequently produced by the same

articles, no more proves their identity, than the circumstance that Tobacco is both *narcotic* and *cathartic*, proves that these two effects are identical.

Results of Experiments with Narcotine.

1st. In the same quantities, Narcotine is far less operative upon the human system, than the Sulphate of Morphine, and even less so than Opium.

2d. Narcotine possesses the same degree of activity, when given pure and in substance, as in any other way tried, its virtues not being either enhanced or diminished by solution in oil, or in dilute Acetic acid.

3d. From two to five grains of Narcotine appear to constitute a medium full dose, where only a single dose is to be taken; i. e. such a dose as will just fall short of producing any disagreeable effects, in a person of ordinary susceptibility.

4th. One grain of Narcotine appears to constitute a medium moderate dose, to be repeated at regular and short intervals;—and three hours appear to constitute a medium suitable period of repetition for such a dose, for a person of ordinary susceptibility.

5th. Narcotine is slower, though it is less prominent in its effects, than the Sulphate of Morphine. The period required for the first manifestation of the several effects of Narcotine, is intermediate between that required for the effects of Sulphate of Morphine, and that required for the effects of Opium; and the period of their duration is intermediate between that of the effects of Opium, and that of the effects of Sulphate of Morphine.*

6th. Narcotine appears to be more or less *nervine*. The general *nervine* operation of Narcotine, I think is decidedly less than that produced by Sulphate of Morphine, but I am not certain that it is less than that of Opium. Narcotine does not appear to produce any of that preternatural watchfulness, which so often results both from Sulphate of Morphine and from Opium. From the circumstance that Sulphate of Morphine possesses this last-mentioned property in an eminent degree, and that Narcotine is destitute of it, it follows that the same property of Opium is dependent upon its Morphine, and not upon its Narcotine. In short, the quality of the *nervine* operation of Narcotine is considerably different from that of Sulphate of Morphine, and consequently more or less different from that of Opium.

7th. Narcotine appears to be considerably diaphoretic, and it commonly produces more or less itching of the whole surface, which is first perceived, and is most considerable, on the inside of the thighs and about the nose.

8th. Narcotine is most prominently and most decidedly narcotic.

As soon as it begins to produce a decided effect upon the system, it occasions a very peculiar expression of the countenance, which is more easily recollected than described. There seems to be a peculiar elongation of all the features, and a kind of lateral shrinking of the whole face, which, together with the effect upon the eyes, and particularly the con-

* It is remarkable that Morphine, which is much more speedy in its operation, appears to be more permanent in its effects even than Opium.

traction of the pupils, more unequivocally indicates the operation of a *narcotic*, than any expression of the countenance which is produced within my knowledge by any other agent. While in the early stages of its operation, and before my family knew anything of the experiments, one individual of them after another noticed this expression, and made remarks upon it. One said I appeared as if about to be attacked with some acute disease—another inquired if I had got *Sick headache* (to which I am subject), and each made some comment. Similar remarks were made to the other gentlemen. One was met in the street by another physician, who immediately pronounced that he was under the influence of some active *narcotic*.

Narcotine very materially and very greatly reduces the frequency of the pulse; it allays very effectually certain sorts of cough; it occasions indistinct vision, or the sensation of a blur before the eyes; and when a person is strongly under its influence, it occasions a contraction of the pupils. It produces also a sensation of dryness and clamminess in the mouth, though it appears sufficiently moist to the eye; and it produces not only a change in the sound of the voice (while a person is under its influence), but likewise very considerable hoarseness. These effects occasionally take place quite early in its operation. It produces not only a considerable diminution of the natural excretion by the *renes*, but also a deficiency of contractile power, or torpor of the bladder.

Whether Narcotine is constipating or not, may perhaps be considered as somewhat uncertain, but it is most probable that it is so. While experimenting upon it, one of the gentlemen had a regular daily alvine discharge; but on account of a much greater susceptibility, he took considerably less of it than the other gentlemen. On the contrary, one gentleman had none for three days, while taking it; and another gentleman had none for five, and I think six days, while under its use. Since the completion of the experiments, I have known it taken twice, for a moderate diarrhœa, with perfect relief of the disease. It may, however, possess the power of relieving diarrhœa, i. e. of obviating morbid irritability, and irritative action of those muscular fibres, which produce the peristaltic motion of the intestines, without being liable to produce constipation; i. e. to lessen healthy excitability, and natural peristaltic motion. The resin of the *Zanthorrhœa hastilis* operates in this manner.

The *antirritant* effects of Narcotine appear to be greater, in proportion to its other powers, than the *antirritant* effects of Opium; and also, as appears to me, than the *antirritant* effects even of Sulphate of Morphine. Its great power of diminishing the frequency of the pulse seems to indicate this, as well as its power of allaying certain sorts of cough. No opportunity has occurred of testing the *anodyne* powers of Narcotine. It will be obvious that this cannot be determined upon a healthy subject. The *soporific* effects of Narcotine appear to be considerably greater, in proportion to its other powers, than the *soporific* effects of Sulphate of Morphine, or than the *soporific* effects of Opium. The sleep produced by it, even when taken in a moderately excessive dose, is peculiarly calm, light, placid and easy;—and even when it is the most intense, the subject of its influence is easily roused; and by voluntary bodily motion and exertion, he can easily keep himself awake, and ap-

parently very much diminish its general influence upon his system—and yet, as soon as he sits down, and remains quiet for a short time, its full influence speedily returns. During the deepest sleep produced by Narcotine, the respiration is light and easy, like that of a person in health, who has been some time perfectly at rest. When the subject of its influence awakes spontaneously from the sleep which it produces, he feels no heaviness, and nothing unnatural, but much as on awaking in the morning from an ordinary night's rest, except that he has a slight sensation of dryness and clamminess in the mouth, a considerable hoarseness, diminished renal secretion, and diminished contractility of the bladder.

In a moderately excessive dose, in relation to the susceptibility of the system, Narcotine produces a mazy and confused state of the head, vertigo, nausea and vomiting. Too large a quantity in the twenty-four hours operates in the same manner. But the effects of a moderately excessive dose of Narcotine, are much less disagreeable than the effects of an excessive dose of the Sulphate of Morphine, or of Opium. The mazy and confused state of the head, and even the vertigo which it produces, are attended with a decidedly pleasurable state of the feelings; and even the nausea and vomiting which it occasions, are by no means distressing, and are far less unpleasant than the similar symptoms produced by Sulphate of Morphine, and by Opium. The nausea and vomiting which a moderately excessive dose of Narcotine produces, begin almost instantaneously, and terminate as suddenly; and, in a very short time, no sensations remain, which indicate that nausea and vomiting have occurred at all,—there is no violent straining, no weakness, soreness, or stiffness afterwards.

According to Magendie, and others, the *ultimate narcosis* of Narcotine is made up of the following symptoms, viz. : signs of fright; backward movements, with incapacity of advancing; frothing at the mouth; agitating or tremulous convulsions of the jaws; general convulsions of the common sort; tetanic spasms of the extensor muscles of the neck, throwing the head backwards upon the spine; a stupor, in which the eyes remain open, but from which the subject cannot be roused, and under which he dies in the course of twenty-four hours. These last seem to be the only effects of Narcotine that have been heretofore fairly determined, either in Europe or this country, at least within my knowledge. It is obvious that these could not be verified on the human subject, nor is it necessary to know them, for the therapeutic application of this agent, in the treatment of human diseases. Magendie says that these effects are similar to those produced by fatal doses of Camphor; and what is remarkable, he pronounces them to be mere *stimulant* effects, and not at all indicative of any *narcotic* powers! I wish that Magendie had given us his precise views of the true nature of an *ultimate narcotic* operation, for I cannot conceive of a purer one than is indicated by this aggregate of symptoms. I venture to assert on the one hand, without the least fear of contradiction, that if no articles which are capable of producing effects of this general character, are suffered to retain their place among the *narcotics*, our catalogue of this class of agents will become extremely meagre; and, on the other, that there is not a pure and unequivocal *stimulant*, that is capable of producing any such symptoms.

9th. Narcotine appears to be entirely destitute of all *stimulant* powers, whether it is given in single full doses, or in moderate and uniform doses, at regular and short intervals. My attention, during the whole of my experiments, was particularly turned to the question of its *stimulant* operation; and in no case, while under its influence, was there the least perceptible increase of the vital energies, or of the strength of arterial action, or even of animal heat; nor was there any sensation of fulness or throbbing in the head; nor, indeed, did any symptom whatever occur, which could by any means be construed into an effect of this sort. On the contrary, there was invariably a great reduction in the frequency of the pulse, in two cases as great as twenty-six beats in a minute, and in none less than eighteen, in the same time. In some of the cases there was a decided diminution, both in the force of the pulsation and the fulness of the artery, and probably more or less in all, though in some it was so inconsiderable as to be of very little consequence. These effects, I repeat, occurred equally, whether the agent was given in single full doses, or in moderate and uniform doses, at regular and short intervals; and whether taken in substance, or dissolved in dilute Acetic acid, or in Olive oil. The power of producing preternatural watchfulness, even were it possessed by Narcotine, would not indicate any *stimulant* properties, but rather mere *nervine* ones, which are entirely distinct. The power of producing vertigo, headache, faintness, nausea, vomiting, irregular pulse, cold extremities, etc. is not the result of a *stimulant* operation, but of a *narcotic* one; and both Morphine and Narcotine are capable of producing all of these last effects, though Morphine more eminently than Narcotine.

If these results can be considered as at all correct (and I cannot discover where there is any possible source of fallacy), the futility of what is called *denarcotizing* Opium, as a means of improving its medicinal operations, will at once be manifest. However, as the effects of Morphine and Narcotine differ considerably, not only from each other, but also from Opium, it is undoubtedly useful to have each of these proximate principles in a separate state, that we may be able the more accurately to adapt our remedial agents to the peculiar circumstances of a given case.

What quantity *per centum* of Narcotine is contained in Opium, I know not.* As, in a given quantity, it is less active than Morphine, and even less so than Opium itself, no quantity of it, however large, will account for the full effects of Opium, upon the supposition that we are correct as to the proportion of Morphine. But I do not esteem it by any means impossible, that the *bitter principle* already referred to, as being called by the vague name of *extractive* (if indeed there is any such distinct principle), or perhaps some other part of this complex drug, may yet be found to contribute something to its medicinal effects.

* It has been said (but upon how good authority I cannot decide), that Opium usually contains about twice as much Narcotine as Morphine.

REMARKABLE CASE.

Communicated for the Boston Medical and Surgical Journal.

MR. EDITOR,—The following case has attracted considerable attention from the medical faculty in this vicinity, for several years; and from a recent occurrence which took place in the case, it has become doubly interesting, and it is thought to be worthy of record among the medical wonders of the age.

A Mrs. Reed, now aged about forty, naturally of a good constitution, enjoyed a comfortable state of health until about the year 1817. While pregnant with a pair of twins, a small umbilical rupture took place from the excessive distension of the abdominal parietes, not larger, as she says, than an English walnut, and which nearly disappeared after delivery. Soon after this period she discovered a tumor in the lower part of the abdomen, which gradually increased in size, became painful, and greatly impaired her general health. It presented a solid but rather unequal surface, and often caused what resembled parturient pains, and not unfrequently attended with some discharge. She, however, became anasarcaous, which rendered her extremely large, and, to appearance, very near her end. Her breathing became very laborious, and it was with difficulty that she could walk or lie down. But observing that the water exuded from her legs through the skin, I made several punctures with a lancet, which discharged freely for several days, and by the use of a few simple medicines the water unexpectedly subsided, and left her apparently free from dropsy, and so much relieved that she was able to perform the usual labor of her family with but very little help. The abdomen, however, remained much distended by the original tumor. The absence of the water led to the discovery of another swelling in her right side, extending from the spine of the ilium to the diaphragm. This last tumor was discovered about 1825-6, and both together caused the most extreme suffering from the pain of distension; and she several times sent for the neighboring physicians, and entreated them to open her side and give vent to what she believed to be a collection of fluid: but on examination, the tumor appeared solid and without any fluctuation, so that her requests were never complied with. After the above-mentioned period of 1826, the abdomen began to be more distended, from what appeared to be an *Ascites*, presenting a uniform surface, and the distinctness of the tumors became less apparent. As the disease progressed, the umbilical tumor protruded, and eventually formed a bag of an irregular shape; the apex, which was the *umbilicus*, being elevated about five inches from the abdominal surface, and in the middle seven or eight inches in circumference, with two lateral processes resembling nipples, about one inch in length. The existence of this singular tumor was unknown to any one but herself until after an occurrence took place, which I am about to mention.

On the night of the 17th instant (July), I was called upon to visit this woman in great haste, as a tumor had burst and was discharging profusely. On my arrival, a distance of four miles and an half, I found her sitting in her chair, with her clothes on, and her finger on the aperture to prevent any further discharge until my advice could be obtained. On inquiry, she told me she went to bed as usual, and about twelve o'clock she was awakened by a discharge from a tumor on her bowels, which had burst.

She got up and dressed her as quick as her situation would permit, with the assistance of her daughter, and had saved three pints in a pot, besides what escaped among the bed clothes. I now found out, for the first time, the existence of such a tumor on her bowels. The friction from the pressure of the finger, for nearly two hours, had enlarged the orifice so much, that on my ordering her to let it run, it would fill a common sized pot in less than a minute. About twelve pounds were drawn off while she sat in her chair, and being faint, she was laid on the bed, herself commanding the orifice with her finger; and after a short interval, three pounds more were taken, when she became too feeble to bear any further evacuation, and the remainder was drawn off the next day to the amount of ten pounds more—being twenty-five pounds in all. This fluid was discharged through an aperture in the umbilicus, which was at the extremity of the tumor. But what involves the whole subject in mystery, is, this fluid was *milk*! and without any disagreeable odor, more than if taken warm from a cow.

I very much regret that none of it was saved for examination; but, expecting to be present at the last drawing, I gave no particular direction, and being unavoidably absent, the whole was weighed and thrown away.

Although the woman is relieved of a great burden, and is able to walk about, she is still encumbered with the two original swellings, one on each side, which I apprehend is an enlargement of the ovaria, and consequently must render her situation deplorable for life.

From the novelty of the above case, not having met with anything of the kind in twenty-eight years' practice, I am very much at a loss to account for such a quantity of milky fluid, which must have been accumulating for about six years. It is evident it could not have been an excrementitious production, nor can I believe it to have been merely a morbid secretion, while it preserved such a mild flavor for so great a length of time. The following suggestion is offered for consideration:—As nature is ever solicitous to preserve her own established laws of order, and when she is frustrated in the perfect execution of her designs, she often makes an effort to imitate, in some way or other, what she is unable to accomplish; and as the irritation excited by the enlarged ovaria did not produce that corresponding sympathy with the mammillary glands in exciting a secretion of milk, which is usual in a regular gravid uterus, she chose the next best method, by preparing the umbilical tumor to perform the office of a secreting lactescent organ.

Lempster, N. H. July 31, 1832.

TRUMAN ABELL.

DR. MORGAN ON SPOTTED FEVER AND MALIGNANT CHOLERA.

[To the Editor of the Boston Medical and Surgical Journal.]

SIR,—My thanks are due to you for the numbers (25) of the Journal, which arrived last week. Had it occurred to me that the letter written to Dr. Thomas Miner, 23d ult. might appear in print, it should have been more explicit. It was in answer to some questions. Excepting the word "more," in the P. S. which should be "none," the copy is correct.

I did not see any private patients in New York, but about fifty in the hospitals; and to the physicians who were in attendance, we are under many obligations for their kindness in affording every facility. They were laudably exposing and fatiguing themselves in the cause of humanity.

A medical opinion on 'Cholera' may be wrong, unless founded on much experience, which I have not had: yet it is proper to state our views when called upon, freely, with of course due respect to the opinion of others; and when erroneous, we should be no less ready to give them up. As I differ from some in regard to the value of 'hospitals' for cholera patients, it is proper to add the reasons. In large cities, there always is a class of unfortunate and friendless people; when these are taken with cholera, the public asylums afford the only chance. But there are many who, though poor, are respectable, and might much sooner be attended at home; from six to twelve hours are generally lost by waiting for conveyance, besides being carried perhaps in wet weather from a half to two miles. If the city would provide funds for such articles as would be necessary; also two or more physicians in each ward, as might be required, my opinion is, more lives would be saved. Most of the cases I saw in New York were beyond the reach of medicine, when they arrived at the hospitals. We should not think of waiting one minute, or of carrying a body under asphyxy from drowning, a mile, if a bed, &c. could be got nearer. The same danger attends both cases when time is lost; and my opinion is, nearly the same treatment is proper.

The disease we had last spring was called Spotted Fever, though there were neither spots nor fever, as the name would imply. It commenced sporadically, early in March, and continued so to the last of April, when it became epidemic, and about 150 cases occurred in five days. It then subsided rapidly, but has shown itself occasionally in and around this place, up to this time. Premonitory symptoms were seldom inquired after or noticed, though I know debility, with pain in the head and at the epigastrium, was common for six to twenty-four hours before excessive prostration, or what is called collapse,* came on. We were seldom called before, but always early in, this stage, when violent convulsions were generally seen, in females strongly mixed with hysteria. These did not last long. The pulse was weak or gone; skin and tongue cool, or cold, the latter large, flabby, and covered with a light fur and mucus; puking common; great distress and pain at the epigastrium; paucity of urine common, also numbness of the limbs. Some wanted cold water exceedingly. In very bad cases, the skin had a brownish purple appearance, especially about the fingers, hands, and extremities; it was cold, but very seldom a cold sweat.

Our treatment was from one to five grains of opium to allay puking, convulsions, or pain; sometimes mustard, or a blister over the stomach, to check emesis; place the patient instantly on a feather bed, with from three to six blankets over him, and give a hot brandy sling; then put from two to twelve hot bricks, wrapped in flannel wet with vinegar, around the body and limbs, to rouse the pulse, and bring on free diaphoresis. This was repeated or diminished, according to circumstances. Reaction came on in from two to twenty-four hours, and any relaxation endangered the patient. Other diffusible stimuli were sometimes used, but never in excessive quantity. We had 300 cases, and lost, I believe, ten. It was confined to the intemperate and lowest class in society, until its decline, when a few of the first were taken. Of those who died, excepting two, all were either intemperate; aged, or had chronic disease; one died

* Here I wish to observe, that the word *collapse*, so frequently used in cholera, does not imply any previous excitement: from the first symptom they begin to sink, and this continues to the termination in asphyxy and death, both in cholera and in the disease we had.

within four hours, the rest within twenty-four after sending for a physician.

What caused the disease, we know not ; but my opinion is, the same cause is now operating in New York, and there develops 'cholera.' I have stated it has continued up to this time. It is now combined with violent cramps in the calves of the legs, and in some there is also pure opisthotonos ; but what is singular, some of these patients were taken while attending a family lately from New York (a few days after arriving, three of them were attacked with 'cholera,' as I saw it there).

If my observation is correct, fevers and other diseases are strangely altered this season at this place ; they sink much more rapidly, and, if favorable, recover much sooner than formerly. We have not rules, but there are general principles to guide us ; and when physicians agree in proscribing everything that can in any way debilitate the system, as predisposing to an attack of cholera, why not apply it to the treatment also ? It has occurred to me, that inhaling oxygen gas, or the nitrous oxyd, might be useful in these cases of asphyxy.

I am, Sir, your servant,

New London, Aug. 7, 1832.

JAS. MORGAN.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, AUGUST 15, 1832.

THE CHOLERA.

AMONG the laws which appear to govern this singular disease, not the least remarkable is its tendency to a regular increase and decline, in each city which has been visited by its presence. This circumstance has indeed been observed of the various epidemics which have, at different periods, visited the human race. It was observed of the plague in London, in 1666, that, just when the frightful mortality had rendered the inhabitants utterly desperate, and it began to be believed that the whole city was devoted to utter destruction, the disease, without any apparent atmospheric cause, began to abate, and the diminution of the mortality exhibited the same regularity which had been manifested by its increase. In regard to cholera, this correspondence is often more remarkable ; and at equal distances of time from the period of the maximum, the intensity of the disease will appear to be nearly equal. As an instance of this, we may quote the following record respecting the appearance of the disease in Bombay, where it continued severe through the short space of 11 days. 1820, May 1, 17 deaths ; on the 2d, 34 deaths ; on the 3d, 34 deaths ; on the 4th, 30 deaths ; on the 5th, 56 deaths ; on the 6th, 81 deaths ; on the 7th, 52 deaths ; on the 8th, 51 deaths ; on the 9th, 54 deaths ; on the 10th, 48 deaths ; on the 11th, 24 deaths.

The period, which is required by the disease to run its course, is like-

wise a subject worthy of notice. This is found to vary considerably in different places, and is influenced probably by many circumstances which are unknown to us ; but it seems, in general, that the period of continuance is longer in large cities than in small. As an instance of the variety which has occurred in places similarly situated, we may mention that in 22 towns in Russia, which were attacked about the same time, the smallest period reported is 7, the largest 80, and the average duration 32 days.

To account for the course which the disease takes in this respect, the following theory has been resorted to, by an ingenious defender of the contagious doctrine, Mr. Kennedy. In every large town which has not been invaded, there will be a considerable proportion of the inhabitants in a state of predisposition. As soon as the cholera arrives, it begins to spread among the persons so predisposed, and it will continue to spread rapidly, until the whole of these are infected, or until such time as their predisposition is destroyed by seasoning. After this period, very few cases comparatively occur, and the subjects of those that do occur, are chiefly strangers, who have come from a healthy locality, or residents who have had their seasoning immunity destroyed by a more than common degree of exposure to strong predisposing circumstances, as great fatigue, or great constitutional debility. Whatever may be thought of this theory, the general fact that the average duration of the disease is from five to six weeks, is amply confirmed by experience ; and this fact is important to be kept in view, as it may inspire hope and encouragement at the time when their support is most needed. At New York, the disease appears to have reached the maximum in about 20 days ; and supposing the decline to occupy an equal period, it is obvious that the duration in that city will correspond very nearly to the average just mentioned. Should it come among ourselves, we may hope that it will conform to a similar law ; and when we have watched its progress for three weeks, there will be reason to suppose that the degree which it has then attained, will be the ultimate extent of its destructive ravages.

CHOLERA OINTMENT.

It has been mentioned in this Journal, that an external application, consisting of mercurial ointment, camphor, and cayenne pepper, had been tried in New York, with very happy effects. The following letter from Dr. Lee, of the Greenwich Hospital, contains a detailed account of this mode of treatment, as practised by him, and will be found highly interesting.

MY DEAR DOCTOR,—Your letter of the 20th came yesterday.—I am excessively hurried, and cannot write you as I would wish. As to our treatment, I trust we have at length hit upon a plan which leaves nothing

more to be expected in the way of therapeutics. In the early stages, our practice is not peculiar; we have employed the usual means, and our treatment has been uniformly successful. It is only in the stage of collapse, in which most of our patients are brought in, that we have experienced any difficulty. At first we relied on powerful internal stimulants and external revulsives; but our success was small, no permanent reaction could be produced. Inhaling the nitrous oxide and oxygen gases had no better effect. At length I concluded that there was no absorption from the mucous membrane; that from the violent action it had undergone, its functions were lost, and brought into the same condition as that of the skin. The coldness of the tongue, and the fact that hot injections were returned cold, gave great probability to the correctness of this pathological view. The only thing then left, was to undertake to introduce medicines into the circulation, mechanically through the skin. The indications were, to restore the circulation, relieve spasm, promote the action of the absorbents, and unlock the secretions. To effect these objects we prepared the following mixture—

R. Strong Mercurial Ointment, 1 lb.
Powdered Camphor, 1-2 lb.
Powdered Cayenne Pepper, 1-4 lb.

Mix well together, and have the patient rubbed all over for half an hour at a time, and repeat the operation accordingly, till the mouth is affected. The success of this plan is perfectly astonishing. Without administering a particle of medicine internally, reaction is sure to follow in from one to three hours, even in the most perfect collapse; the secretions begin to return, the evacuations become bilious, and the patient expresses himself perfectly relieved. Since we began this plan, more than two thirds of our patients have been cured—a large proportion of the rest were in a dying state when brought in. I believe the mercury is rubbed mechanically into the pores of the capillary vessels, and thus taken into the circulation. We invariably affect the mouth in from four to ten hours—then the patient is generally safe. We have lost but two where the gums were affected. In the course of my professional life, I have never been so gratified in the effect of remedial agents. The greatest sceptic in the usefulness of our science, would yield to the demonstration of such facts as our reports present.

CHARLES A. LEE.

To Dr. L. A. Smith, Newark, N. J.

SICKNESS IN LOUISIANA.

We extract the following remarks from the letter of a correspondent at Franklin, La.

It is now becoming quite sickly; the prevailing disease being the common bilious fever of the country—but in almost every instance assuming an unusually obstinate character, and exhibiting, to a greater extent than in former seasons, symptoms of gastric and intestinal irritation, which oppose the greatest obstacles to a successful treatment of the disease. Another feature in the fevers of the season, which seems more particularly to distinguish them from those of other seasons, is the early period after the accession of the disease, at which the patient falls into an alarmingly comatose state, attended with cold extremities.

SICKNESS AT CHARLESTOWN.

WE mentioned in our last that the origin of this singular disease was a mystery ; and we have now to add, that it has not yet been unraveled. Sunday, on which it commenced, was unusually warm and sultry, and the men suffered considerably from confinement in the close air of a crowded chapel. Some change had also been made in the diet of the prisoners, by the substitution of rice for potatoes ; but these circumstances furnish no adequate explanation of the simultaneous occurrence of so violent a disease. On this topic the report of the Committee will probably furnish some satisfactory information. The most remarkable circumstance attending the disease, was the profuse character of the evacuations—not less than three gallons of fluid being discharged by many in the course of a few hours ; and this although the use of liquids was nearly prohibited. The remedies principally employed were bleeding and opium. The former was resorted to in more than half the cases, and with the most marked benefit, not only in relieving the pain, but in arresting the vomiting and purging ; so that in many instances venesection alone effected an entire cure of the disease. In many cases it was found very difficult to obtain blood from the veins. During the last week cases were daily occurring in a milder form, but presenting a marked resemblance to those of Sunday. The whole number to this time has exceeded 140. No death has taken place.

SICKNESS AT SOUTH BOSTON.

ON the same day with that of the Charlestown cholera, diarrhœa appeared among the inmates of the House of Industry at South Boston. The complaint was very general in this Institution (which is an Alms House), and it is somewhat remarkable that its occurrence should be simultaneous with that at the Prison. Here too there was something unusual in the diet of the inmates—the soup having been a little richer than usual, and the brown bread sour. Whether, in either of the cases, the circumstances of diet, &c. acted as exciting causes of disease, is uncertain. It is not probable that, in any former season, or under any previous constitution of the atmosphere, so slight a cause would have produced so signal consequences ; but it is worthy of record, that of so many cases, of this description, at the present period, not one has proved fatal.

Powdered Alum, a Cure for the Toothache.—Dr. KUHN asserts that alum, finely powdered, not only relieves the toothache, but that it also arrests the progress of caries in the tooth. One or two grains are to be inserted into the cavity of the tooth, and this is to be repeated when the pain returns. In a short time the pain will cease to recur, and the chemical action which constitutes the caries will cease.—*Gazette Méd. de Paris.*

Sanguineous Tumors on the Head in Infants.—Professor Græfe, of Berlin, states that he has lately met with nine cases of the above description. Where the tumor was not very large, it has been sufficient to apply a lotion, consisting of sal ammoniac 3ij. vinegar of squills 3j. and six ounces of water; but where the extravasation has been more considerable, he has made a small incision with a lancet, and introduced a few threads of charpie into the wound, applying slight pressure by means of a compress and bandage.—*Journal für Chirurgie u. Augenheilkunde.*

Therapeutic Effects of Croton Tiglium.—M. Andral having prescribed frictions with the oil of *croton tiglium* to the abdomen for the purpose of inducing evacuation from the bowels, perceived that the article produced active inflammation of the skin; with a pustular eruption very similar to that of smallpox. Believing that advantage might be drawn from this in practice, M. A. applied the oil, in frictions, along the course of the sciatic nerve, in some cases of obstinate neuralgia, and with complete success. From its powerful revulsion to the skin, he has found it to be productive of utility in laryngitis and chronic gastritis.—*Gazette Médicale, January, 1832.*

The Cholera.—Another case of cholera is reported to have occurred in Newport, R. I. on Sunday last, in the person of an intemperate man between 50 and 60 years of age.—One case is also stated to have taken place in New Haven on the 7th inst., and one in Taunton, Mass. on Saturday last; both fatal.—In the city of New York, on the 11th, the number of new cases reported was 74; deaths, 33. Nine of the cases in the private practice are reported as *neglected diarrhœa*. In the Sing Sing prison, whole number of cases of cholera, 262; deaths, 84.—In Albany, Aug. 10, new cases, 19; of which 11 were severe, and 6 deaths.—The Board of Health of Troy, N. Y. report a diminution of cases. Deaths for the last 48 hours, 3. Dr. Ira M. Wells died on the 9th inst.—In Norfolk, Va. the Board of Health report, on the 6th inst. 31 new cases for the last 24 hours ending at 12 o'clock. Total deaths, 12; 3 white, and 9 colored persons. On the 7th, cases, 34; deaths, 10.—154 new cases were reported in Philadelphia on the 9th, and 58 deaths. On the 10th, new cases, 142; deaths, 39.

NOTICE.—We have enclosed, in this number of the Journal, the bills of some of our subscribers who are in arrearages, and we take the liberty of requesting an early attention to them. Our friends must be aware that we cannot, without inconvenience, send the Journal to individuals, for several years in succession, without any compensation; and we trust that those who have thus received the work will discover no impropriety in our again reminding them of their delinquency, and of the necessity of soon discontinuing to send them the Journal, for which they seem so unwilling to pay.

TO CORRESPONDENTS.—We regret that want of room must deprive our readers, until next week, of an interesting history of the cases of Cholera at Newport, with which we have been politely favored.—The communication from Dr. M. we shall endeavor to present at the same time.—Dr. SIBLEY will excuse us for delaying, a week or two, the valuable practical notes he has presented for our Journal.—Other favors are on hand.

ERRATA.—On page 417, line 21, insert *of* after 'those.' Line 20, from bottom, for 'through' read *throughout*.

Whole number of deaths in Boston for the week ending Aug. 11, 22. Males, 8—Females, 14. Still-born, 3.

Of consumption, 1—infantile, 1—liver complaint, 1—inflammation in the bowels, 1—dysentery, 2—old age, 3—scarlet fever, 5—child-bed, 1—suicide, 1—cholera-infantum, 1—intemperance, 1—wound, 1—inflammation in the brain, 1—dropsy in the chest, 1—dropsy in the brain, 1.

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[NO. 2.]

TYPHUS AND CHOLERA.

Sinking Typhus compared with Malignant Cholera. By THOMAS MINER, M.D.

Communicated for the Boston Medical and Surgical Journal.

'TYPHUS SYNCOPALIS may be defined—A *nervous* fever, in which the stage of reaction is wanting, the torpid or forming stage and the stage of exhaustion being blended together, attended with pain in the head and vertigo, and paroxysms of gastric sinking; and, for the most part, with a cool skin and a slow pulse, and an absence of all febrile smell.'

'Petechiæ, eruptions ecchymoses, general infusion of the capillaries, coma, delirium, palpitation, interrupted respiration, numbness and insusceptibility to the action of ordinary rubefacients and epispastics, and sinking after evacuations, are much more common than in any other febrile disease. By attending to these symptoms, it may be more easily distinguished than any other continued fever.'

'Coma or delirium may sometimes be so severe or so protracted, as to overwhelm or disguise every other symptom; or the attack may be so violent as to destroy life in a few hours; and in these circumstances, in sporadic cases there may be, with the inexperienced, some hesitation as to the nature of the complaint. But, on the whole, there is less liability to mistake than in the diagnostics of any other acute fever with which we are in the habit of meeting, in the ordinary course of practice.'

'Dysentery, cholera, cynanche, catarrh, cough, pneumonia, measles, rheumatism, gout, and even common typhus, are often complicated with it; yet there is always some prominent symptom, by which it may be determined when the *general affection of the system* is typhus syncopalis.*'

If the first paragraph of this extract is considered as a *generic* description of a peculiar kind of *sinking* fevers, it unquestionably comprehends malignant cholera. It describes a general torpid, exhausted, or collapsed state of the system, resembling a combination of the cold or first stage and the last or sunken stage of an ordinary but severe *nervous* fever, in

* See Typhus Syncopalis or Sinking Typhus, or the Spotted Fever of New England, &c. By Thomas Miner, M.D. 1825. See also Boston Medical Intelligencer, Sept. 13, 1825. See, further, American Medical Recorder, July, 1827.

which the stage of reaction or the hot stage is absolutely wanting. The next two paragraphs recount the most common symptoms which casually occur in this sunken febrile disease, though they are many of them accidental, and are therefore not absolutely necessary, at least not all of them, to the complaint. The last paragraph enumerates several diseases, which, in a nosological point of view, have their peculiar names, and yet may be attended and combined with this *generic* sunken state of the system. This is not surprising, as every physician knows that all acute diseases are apt to *wear the livery* of the prevailing epidemic constitution. Among the diseases thus enumerated, *cholera* is expressly mentioned, it having occasionally been met with, and found to be a very distressing and dangerous appendage to typhus syncopalis.

Thus far, all is plain. It is usually very easy to see *generic* resemblances; but it often requires the most exact discrimination to detect *specific* differences. Let us not, however, be discouraged in the attempt. I believe, in the year 1825, I was the first to suggest the resemblance of sinking typhus to malignant cholera. I then formed the idea, that both diseases possess the same general character, and consequently require the same general treatment, varied unquestionably according to particular circumstances, but probably not more so than in different cases or varieties of the same specific disease. I am still of the same opinion, though I have subsequently turned my attention to the usual differences, so as to enable me, if possible, to point out the distinctions in their diagnostics, as well as in their treatment. As far as respects myself, I have come to some tolerably definite conclusions, though I may perhaps fail in making their ground perceptible to others.

It is agreed that we have no very precise rules in nosology, by which to distinguish *species* and *varieties*. Diseases of most kinds do not retain their specific differences in the same sense as is the fact with plants and animals; but they frequently run into each other, and form hybrides or permanent varieties, which may continue for a length of time; and in this respect, for all nosological purposes, they may be considered as distinct species. In this point of view, the more evidence I receive, and the more I reflect on the subject, the more am I inclined to believe malignant cholera and sinking typhus to be *distinct*, though very nearly *allied*, species. As I have elsewhere remarked, they resemble each other as much as epidemic catarrh does common catarrh, remittent intermittent, or perhaps more nearly still, the yellow fever of the West Indies the malignant remittent of Batavia.

Without adverting to the supposed variations between Asiatic and European cholera, the former being said to be much more rarely preceded by diarrhœa, and as rarely followed by fever, it is evident that cholera is a more simple disease than sinking typhus. In cholera, there is usually but one extreme paroxysm of *subsidentia*, sinking, or collapse, of which there is rarely or never a spontaneous remission. Unless it is removed by art, it generally continues till it sinks the patient in death. This is occasionally the case in the extreme instances of sinking typhus; but perhaps in three cases out of four the patient has a milder kind of sinking, which recurs by periods, it being what I term *ordinary* sinking. Unless these paroxysms of *subsidentia* are mitigated or removed, they

fatally exhaust the patient, and he is then seized with what I call *critical sinking*, which very exactly resembles the dreaded collapse of cholera, and from which, in both diseases, it is about equally difficult to raise him. In general, there is a much greater *weight of disease on the brain*, and coma or delirium is much more frequent, in sinking typhus than in cholera. This is a very important distinction, and perhaps the principal one of any consequence, either in a nosological or practical point of view ; and it is the reason that blisters to the head are so indispensable in every bad case of sinking typhus ; and because this state of the brain is atonic in the extreme, immensely large doses of the diffusible stimulants are not only tolerated, but imperatively demanded. As Sydenham and Rush both remark, opium relieves 'this atonic coma and delirium.* In cholera, there is a peculiar *torpor of the hepatic system*, and a great portion of the burden of the disease is in the stomach and other parts of the alimentary canal ; and if mercury can be made to act in season, the other parts of the system, in general, resume their functions. As far, therefore, as respects the peculiar local affections, the atonic, irregular state of the brain is to be relieved in sinking typhus ; in cholera, it is an important indication to remove the torpor from the liver and contiguous viscera. Besides the peculiar, local affections, the general state of the system at large is very much alike in both complaints. There is in both an obvious debility, or diminution of vitality, and a greater or less degree of oppression, depression, or sedation, so that there is a great insusceptibility to the remedial action of ordinary agents. This debility in sinking typhus is not merely apparent, but real ; the powers of life are actually exhausted, not smothered, and the vital flame is nearly extinct. All depletion, every emetic, cathartic, or refrigerant, or whatever debilitates, obviously sinks the patient, and rapidly wastes the little remaining vitality. Even in those cases in which it is judged expedient lightly to move the bowels, more than one motion always increases the sinking. It is somewhat different in cholera. Though there is considerable exhaustion, the relative oppression or torpor is usually still greater. The consequence is, that patients will often bear emetics, cathartics, venesection, ice and other refrigerants, and indeed almost any kind of treatment, for hours, without apparently sinking much the faster for them ; and occasionally such means, however absurd some of them may be, by the forcible shock which they give the system remove the torpor, and with it the disease. There can be no question, that if sinking typhus were to be treated in this desultory and rash manner, it would prove to be a much more fatal disease than cholera. The reason is, that the main indication in sinking typhus is to restore the system from the exhaustion ; in cholera, torpor is to be overcome, and it is best effected by agents that will waste as little of the vitality as possible. When this is attempted by depletion, it is playing at a game of great hazard. There is no middle ground, when the practice is carried to any extent. It is victory or death. I have elsewhere stated, that in sinking typhus there now and then occurs a case, in which medicines will produce their specific or operative effect, without any remedial effect ; thus, mercury may salivate, alcohol exhilarate,

* See Rush's Sydenham, page 115, edition 1809.

and opium may stupify, without *counteracting* the disease. Indeed, in this case, the operative effect seems to *coincide* with the diseased action, and to increase it. Happily such cases, though sometimes occurring, are still very rare in sinking typhus. They are said to be more common in the collapse of cholera. I presume, however, it is more generally the case in those subjects who have a long time remained in a sunken state, without any proper assistance. A peculiar, anxious, sunken countenance, with a leaden, or purple, or motley hue of the skin, though frequent in the worst cases of sinking typhus, are much more common, if not universal, in the collapse of cholera. The shrinking of the muscles or their integuments, and the flocculent, limpid, or rice water dejections, though perhaps not absolutely peculiar to cholera, are yet so general as to be characteristic of the disease.

I have thus enumerated all the important nosological and practical differences which have occurred to my mind, though it is very possible that some others of equal weight may have escaped me. It remains to make practical inferences.

It is obvious, that the common symptoms of both diseases are to be met by the same means. Coldness, pain, numbness, spasms, vomiting, purging, &c. are to be relieved by similar treatment in kind, if not in degree. The same is the case with that intolerable gastric sinking, or inexpressible anxiety at the stomach, as well as with general debility, as far as it extends. A great point, however, is to overcome the extreme torpor of the liver and other viscera in cholera, after it has been suffered to remain any considerable time. On its first access, as appears by the testimony from India, it is very surely and successfully combated by opium, essential oils, alcohol, and external heat. Still, it appears, on account of the peculiar state of the hepatic system, that calomel is about as important as an adjuvant in cholera, as blisters to the head are in sinking typhus, on account of the state of the brain. When these measures are timely employed, the probability is, that there is no very great difference in the relative success in the treatment of the two diseases. The misfortune is, that in cholera the number of patients on hand at the same time is often so large, and there is so great a delay in removing them to an hospital, that before any treatment is employed they have already advanced far into what I call *critical* sinking, or a fatal collapse. Still, there is something to be done. With all the seeming exhaustion, and no doubt it is very considerable, much of this apparently desperate condition is owing to torpor. Instead of abandoning these forlorn objects to their fate, or of trying rash experiments, such as bleeding, ice, antimonials, &c. we should follow the analogy, as far as it goes, by which similar symptoms have been overcome in other diseases. There is no need of the actual cautery, or of hot water blisters. Sinapisms and epispastics, moistened with oil of turpentine where they touch the skin, and enemata of half an ounce of oil of turpentine, with two to four drachms of laudanum, diluted with a little mucilage, every hour or two, have frequently restored some of the most hopeless cases of sinking typhus. A single dose of half a drachm to a drachm of calomel, with three or four grains of opium, followed by alcohol, essential oils, and other *acid* stimulants, combined with moderate quantities of opium, judging from a few cases that I have

seen reported, bids fair to remove the torpor of some kinds of cholera. It is to acrid stimulants, if to anything, that we must look for the removal of extreme torpor. Ten minims of Fowler's solution, combined with laudanum, and in some cases with drachm doses of tincture of capsicum, taken upon the stomach every hour, have sometimes succeeded, and produced a favorable reaction. Much depends upon the manner of treating reaction when it does occur. The heat which sometimes supervenes is from irritation, and not from active inflammation, and is, therefore, much more safely mitigated by sedatives than by venesection. The engorgement or congestion, which is so much talked of, is the result of debility, and not of tonic action. It is, therefore, best prevented by proper general support; and if it is on the brain or lungs, by blisters rather than by the lancet. This state of congestion is usually found in subjects that have been bled to death.

One circumstance had nearly escaped me. As respects the range of its severity, that of sinking typhus seems to be much wider than cholera; and, as Darwin says of cynanche maligna, it exists from a flea-bite to the plague, in every intermediate degree of intensity. In its severest form, I have seen it destroy life within six hours after its attack, and within one hour after a prudent family became sufficiently apprehensive to call a physician. It was attended with vomiting and diarrhœa, or in other words, was a case of complete cholera. In this case, no medicine at all, except twenty-five drops of laudanum, was administered. Other cases have been distinctly marked, and yet so slight as not to require the patient's keeping his bed. It varies equally with respect to its duration. It is sometimes broken up within a few hours of its access, but more generally continues five or seven days; at other times, especially when it is complicated with common typhus, and often when it is only a mild disease, it is protracted two, three, or four weeks, and even occasionally two or three months. However, in these protracted cases, daily paroxysms of gastric sinking, or, in a few instances, only weekly attacks of the kind, very plainly show the nature of the disease. Like cholera, it pays very little respect to seasons, and has frequently prevailed in every month of the year. It has occasionally appeared, under the name of *cold plague*, or *spotted fever*, in every parallel of latitude, from New Orleans to Canada, though it is believed to have appeared much the most frequently in the interior of New England, and has made considerable ravages in the State of Ohio. The manner in which cholera propagates itself from town to town, district to district, state to state, and continent to continent, is very different from the way in which sinking typhus usually prevails.

From these considerations, it appears to me that sinking typhus and malignant cholera, though they are obviously comprehended in the *same genus*, are nevertheless diseases of quite *distinct species*. It is only in the suddenly fatal cases of sinking typhus, or in the period of its *critical* sinking, that its resemblance is so great to cholera as to make it a question whether they are not identical. They apparently diverge from each other, in proportion to their mildness. Ordinary cases of sinking typhus so much resemble common *nervous fever*, that without a previous history, or being present during a paroxysm of *ordinary* sinking, the best judges

can scarcely discern the difference ; and when the patient is free from gastric sinking, as in the milder cases he is tolerably so for several hours every day, a superficial observer, at these times of remission of the distress of the stomach and its attendant symptoms, usually detects no tinge of typhus syncopalis. Such difficulties in the diagnosis, it is said, do not occur after cholera has been once developed, or at any rate not till the collapse is removed, and a consecutive fever supervenes.

Middletown, Conn. August 7, 1832.

CHOLERA AT NEWPORT.

Dr. Turner's account of the first Cases of Cholera at Newport. Communicated for the Boston Medical and Surgical Journal by J. C. WARREN, M.D.

Newport, August 3, 1832.

To Dr. John C. Warren, Boston.

DEAR SIR,—I will allow myself to make a brief but circumstantial statement of the only cases of cholera (two in number) which have existed in this town. I am the more willing to do so, in consideration of the erroneous rumors and statements that have been circulated upon the occasion, abroad, I find, as well as amongst ourselves, some of which, it seems, have created a corresponding apprehension respecting the safety of two members of your family, at present on a visit here.

Having availed myself of ample means of acquiring a satisfactory knowledge of the most important circumstances connected with these cases, the correctness of the following statement may be relied on.

Two unmarried females, of about 38 and 42 years of age respectively, were the unhappy subjects—both of them persons of ordinarily good constitutions. They left Montgomery county, forty miles above Albany, where they had been spending several weeks on a visit, about the twelfth of July, in perfect health—took water passage to Albany, where they remained four hours on board the steamboat, in which they arrived at New York, after an ordinary passage—landed on the west side, and passed immediately over to the east side of the city, through the upper part of it, to the packet *Hero*, lying there, as passengers for Newport, and remained on board, with 35 other passengers, the four days previous to her sailing, which was on the morning of Tuesday, the 17th. After a passage of 24 hours, arrived in our harbor the next day about noon, where the vessel was immediately quarantined near Rose Island, all the passengers but eight or nine taking up their quarters at the United States barracks at that island, fitted up for quarantine purposes. The two cholera patients above-mentioned were amongst the small number that remained on board the vessel. All the passengers remaining well on the evening of the 24th, they were, by an order of the Board of Health, released from quarantine at sun-rise next morning (unfortunately without the health officers ascertaining that serious illness had occurred on board the vessel, in these two instances, in the course of the night). Two hours after, these patients, with the other passengers, landed in the town at the head of Bannister's wharf, and were conveyed in a carriage to the house of a relative in Spring Street.

At nine o'clock an urgent application was made for me to visit them as soon as possible ; but being engaged in a circle of business which carried me out of town, I did not return in season to see them until about noon, when I found Drs. Dunn and Hazard with them (who had preceded me about an hour), earnestly and anxiously employed in administering the most appropriate internal and external remedies for their relief. We were of opinion that they were strongly marked cases of malignant or spasmodic cholera, and agreed upon the propriety of their being immediately reported as such to the Board of Health. Miss Horsewell, the patient first attacked, seemed to us in the state of irrecoverable collapse. Miss Peckham (attacked a few hours later), although her case was extreme and strongly marked, was perfectly rational, and capable for five hours of answering intelligently to any question put to her. Her statement was, that they dined on board the vessel the afternoon previous, and ate moderately of fresh meat and green peas. On being scrutinizingly questioned as to the quantity and quality of the latter, she assured us that they were young, tender and well cooked, and that neither of them ate more than a teacupfull, after which they took no solid food ; that at about nine o'clock they both went to bed, free from any complaint, she not having had any previous bowel complaint, although her friend had had a slight one, for a few days before, which had at that time subsided. At about eleven o'clock her friend began to be affected with severe cholera morbus, and herself with the same symptoms three hours later, which continued upon them when they were visited by the health officer in the morning. The woman of the house where they were carried informed me, that, upon entering her door, she was extremely shocked with their appearance, their countenances, as she expressed it, being frightfully haggard and sunken.

This being the first introduction amongst us of this new and frightful disease, we all agreed on the propriety of notifying all the practising physicians in the place of the event, that they might, without exception, have an opportunity of making their observations upon its symptoms, &c.—which opportunity they all availed themselves of, in the course of the afternoon. Miss Horsewell died at eight o'clock in the evening, and Miss Peckham about five hours after. They were both, as soon as possible after their decease, enveloped in tarred sheets ; the first was interred about midnight, and the other before sun-rise. Early the same morning the bedding and clothes of the deceased were buried to the depth of some feet, and all due purificatory measures, as respected the house, were, under the direction of the Board of Health, with the advice of the faculty, thoroughly executed.

The latter part of the same night, Miss Chace, a passenger in the same vessel, who performed her quarantine likewise on board, and went immediately afterwards to her home in the town of Portsmouth, was attacked with the same symptoms, and became so much alarmed by nine o'clock in the morning as to send for her physicians, who found her in the asphyxial state of the complaint, which terminated fatally at 3 o'clock, P. M.

Another passenger, Mr. Bowen, who lodged and spent much of his time in the cabin likewise, went to Bristol immediately on being released—became ill the next day with the same cholera symptoms, under the endurance of which he sunk in a few hours. These are the only cases of the kind we have heard of from amongst the whole number of passengers. It forces itself upon our notice that they were all amongst the few who staid by the vessel ; for if the latter did not take all his meals there, he

lodged on board every night. Is it not probable, then, that the seeds of cholera were received in New York, and that the predisposition favoring the developement of the consequent disease was created by the comparatively confined and close air of the vessel's cabin, whilst the more fortunate number, who took their better ventilated quarters at Rose Island, avoided such predisposition, and consequently escaped its dreadful consequences?

The period since the introduction of this pestilence amongst us has been a time of most anxious expectation. We have encouraged ourselves with the belief, that the extraordinary purity of our atmosphere, exempt as it is from all malarious and other deleterious vapors, would, aided by the due cautionary measures adopted, give us a reasonable prospect of being less severely dealt with by this frightful enemy than the inhabitants of other places less favorably circumstanced in these respects; and as nearly nine days have now elapsed since the interment of its victims in this town, without the occurrence of any new cases, either amongst their attendants or their fellow citizens, we feel much strengthened in this cheering hope—aware, at the same time, that a few days' exemption more must pass away before this hope can be fairly settled into sanguine confidence.

With great respect,

Your friend and ob't servant,

W. TURNER.

P. S. This town has been unusually healthy since the 1st of July—a circumstantial evidence of which is, that, with a population exceeding eight thousand, only six deaths have occurred during the month, two of which were of strangers, one of whom arrived here, a few days previous to his decease, in the last stage of a protracted liver complaint; and the other was of pulmonary consumption. Of the remaining four deaths, which were amongst our citizens, one was immediately killed by a stroke of lightning. Since, however, the death of the two cholera patients described, we have had three other fatal cases of bowel complaint, occurring in one family in this town (the mother and two children), pronounced by the attending physicians to be spasmodic cholera. Whatever may have been the *exciting* cause in these instances, we have no reason to doubt that the subjects were predisposed, in the highest degree, to be affected with severe bowel complaints, from local causes confined to the spot, calculated to produce the most offensive and unwholesome exhalations. This, I understand, was evident to the physicians and other persons who went to the house before it was cleansed, who found the foul air there generated excessively offensive.

Yours, &c. W. T.

EXPERIMENTS WITH SULPHATE OF MORPHINE. 7

Results of Experiments with, and Observations upon, Sulphate of Morphine. By WILLIAM TULLY, M.D. Professor of Materia Medica and Therapeutics in the Medical Institution of Yale College.

THE only series of experiments for the purpose of determining the precise medicinal powers of Morphine, of which I have any knowledge, are those of Dr. Bally (of France); and even with these, I am acquainted only through what I take to be a mere summary of his results, abstracted from a European periodical. As far as I can ascertain from the

summary in question, Dr. Bally seems to have employed uncombined Morphine. My own experiments were made entirely with the Sulphate of Morphine, and I have generally employed this salt in my subsequent practice, so that my results must be understood as having been obtained with that preparation. I am not aware that there is supposed to be any difference between the number and the quality of the operations of Morphine and its salts, though there may be more or less in the degree of their effects. It is my purpose to refer to the conclusions of Dr. Bally, in immediate connection with my own.

Dr. Bally says that the action of Morphine upon the system, is very similar to that of Opium. This is certainly the fact with the Sulphate of Morphine. Several of my professional friends, to whom I have recommended the use of it, have informed me that they could perceive no difference between its effects and those of Opium. To this conclusion, however, I cannot entirely agree. Dr. Bally says that the brain and nervous system are the parts of the animal economy, upon which Morphine appears to exert its principal operation. This may be also true in general with the Sulphate; but, according to my observations, it would be very incorrect to understand it as excluding all effects upon the circulating, secretory and absorbent systems. The Sulphate of Morphine produces a very considerable degree of the calm, placid, and pleasurable sensation; the peculiar wakefulness, and even inability to sleep; and the mental exhilaration, which constitute a nervine operation. I am satisfied that its nervine effects are considerably greater, in comparison with its other operations, than the nervine effects of Opium. Whenever I have taken a single full dose of the Sulphate of Morphine (which, with me, is about a quarter of a grain), I have invariably been entirely unable to sleep, for a period between four and six hours afterwards. My wakefulness has always been calm, placid and pleasurable. Thus, when I have taken the dose, the beginning of the evening, I have usually been kept awake by it till about two o'clock the next morning; though the sleep obtained, during the remainder of the night, has seemed to refresh me as much as if I had slept the whole time.

Sulphate of Morphine appears to possess more or less diaphoretic power; though, as far as I am able to judge, less than Opium, and of course less than Narcotine. Sometimes, also, it produces a troublesome itching of the skin, which, in some cases, is universal, but in others confined to the nose, the neck, the loins, and the inside of the thighs. According to Dr. Bally, this itching is occasionally, but rarely, accompanied with an eruption.

In single full doses, the Sulphate of Morphine, under my observation, has invariably produced more or less hoarseness.

The Sulphate of Morphine powerfully allays morbid irritability and irritation,—morbid sensibility and sensation,—morbid mobility, restlessness and jactitation, and irritative actions generally, provided they are connected with a non-phlogistic, or a positively atonic diathesis. This is substantially stated by Dr. Bally, though with less precision. He, however, asserts that this agent is incapable of allaying cough. Now I have been long in the habit of using it for this purpose, not only upon my patients, but upon myself, and I consider it as the most effectual

article, in the whole *materia medica*, perhaps with the exception of *Narcotine* only.

The Sulphate of Morphine is speedily and powerfully anodyne ; and I believe it is more so, in proportion to its soporific powers, than Opium. It is also soporific ; but under my observation, it has invariably been more speedy in producing its nervine, antirritant and anodyne operations, and less speedy in producing its soporific effects, than Opium. It is probable, that a variation in dose, and method of management, might occasion some variation in this respect. However, its soporific effects appear to me to be considerably less, in proportion to its other operations, than the soporific effects of Opium. When deep or sound sleep is produced by this article, it seems to be more laborious, respiration is more affected, the subject of it is less easily roused, and more heaviness and more disagreeable sensations remain after the sleep passes off, than occur from the operation of *Narcotine* ; but, I am inclined to think, less than result from the operation of Opium. However, the observations that I have had opportunity to make on a powerful degree of the soporific operation of Sulphate of Morphine, have been few, and are therefore not absolutely conclusive.

Dr. Bally says that Morphine occasions dimness of sight, and that in brutes, it occasions dilatation of the pupils, but not in man. He admits that this effect is produced only by large doses. I have never witnessed either dimness of sight without dilatation of the pupils, or dilatation of the pupils, from the Sulphate of Morphine ; but as every active narcotic, when taken to a sufficient extent, seems to be capable of producing the former of these operations, I think it may be fairly presumed that this will not be found to be an exception.

When taken in full doses, Dr. Bally says that Morphine sometimes produces slight, but transient, or fugitive, (neuralgic ?) pains, in the umbilical region ; which, however, he says, do not occur when the system has become a little accustomed to it. I have never witnessed this operation from the Sulphate of Morphine. Dr. Bally also informs us, that Morphine sometimes produces nervous tremors, and sometimes muscular agitations, neither of which have I ever observed from the Sulphate.

When taken either in a single large dose, or in moderate and uniform doses, at regular and short intervals, and for a sufficient length of time, the Sulphate of Morphine diminishes the contractility of the urinary bladder, and thus occasions difficulty in passing urine. Sometimes even a complete retention or suppression takes place. This effect passes off, when the influence of the agent upon the system is completely at an end. Dr. Bally mentions this effect, from large doses of Morphine, but he supposes that men only are susceptible of it, and that it *never* occurs in women. Now I have very often witnessed this operation from the Sulphate, and quite as frequently in women as in men. Dr. Bally thinks that Morphine neither increases nor diminishes the secretion of urine, nor changes its qualities in any way. Perhaps this is strictly correct of the Sulphate, though it has always appeared to me to diminish this secretion moderately. However, I do not consider my observations as decisive on this point.

Dr. Bally says that an occasional dose of Morphine produces torpor

of the intestines, but that its continued use renders the intestines lax. A regular and continued use of the Sulphate of Morphine, in uniform doses, and at equal intervals, has been as liable, under my observation, to produce costiveness, as a similar use of Opium, though I have not generally found a single full dose of it to produce this effect. On the contrary, it has, in many cases, been followed, after about twelve hours, with a single loose evacuation. On my patients, and on myself, I have uniformly found the Sulphate of Morphine to be both speedy and effectual, in checking diarrhœa. In my hands, it has always radically cured all cases in which I have employed it. I have never used it, however, in any case requiring extremely large quantities of medicine for its relief.

In single large doses, the Sulphate of Morphine produces only sedative effects; but, in moderate and uniform doses, at regular and short intervals, and continued for some time, it certainly produces stimulant effects, i. e. it occasions a rapidly diffused and transient increase of the vital energies generally, and particularly of the strength of arterial action. What proportion its stimulant operation may bear to its other effects, in comparison with Opium, is not perhaps well settled. Dr. Bally expressly denies that Morphine ‘excites’ the vascular system at all, even in small doses, and certainly not in large ones. Does he suppose that it would be admissible in a truly phlogistic, sthenic, or tonic disease? Has he ever employed it, in moderate and uniform doses, at regular and short intervals, and for a considerable time? If not, he has not tried it fairly. But Dr. Bally supposes that a ‘*disturbance of the functions of the circulating system,*’ by large doses, has been mistaken for a stimulating effect. Cullen also supposed that an ‘*irritation of the sanguiferous system,*’ which he admitted was the ‘first operation’ of Opium, was mistaken for stimulation. Now it matters not by what name this operation is called, so long as it is admitted that it exerts this operation, for this is undoubtedly the operation that augments phlogistic diathesis, and diminishes the atonic. It is an operation which is essentially attended with an increase of the vital energies generally, and an augmentation of the strength of the arterial action. A highly distinguished physician of the present day, in our own country, considers it a strange misnomer to call Opium a stimulant. If the name of this operation must be changed, and the Sulphate of Morphine not allowed to be a stimulant, Opium itself must share the same fate. Dr. Bally’s notions in respect to the stimulant operation of Morphine seem to be only a revival of the exploded theory of Cullen, in regard to the stimulant operation of Opium. Whether the Sulphate of Morphine proves at one and at the same time both stimulant and sedative, or whether it proves sedative only, depends, according to my observations, as much upon the manner in which it is administered and managed, as it does whether Opium operates in one or both of these ways.

Dr. Bally declares that Morphine will not produce *headache*, nor any other of the symptoms of *excitement* (!) which follow the use of Opium. Now I have as often known headache produced by the Sulphate of Morphine, as by Opium, in proportion to the number of times that I have used each. It seems to me extraordinary that the headache, which some-

times results from Opium, even when given in an appropriate case, should be considered as a symptom of excitement.

Dr. Bally concludes that Morphine occasions no thirst, no loss of appetite, and no disorder of the digestive organs. Now, in certain cases, I have repeatedly witnessed each and all these effects, from Sulphate of Morphine; and, in certain cases, where they previously existed, I have known them obviated by it. Whether it occasions these effects or not, depends, according to my observations, upon the disease, the general condition of the system for the time being, the temperament of the patient, and, above all, the manner in which it is managed. In a very great majority of the cases in which I have employed the Sulphate of Morphine, certainly no such effects have occurred.

When administered in full doses, the Sulphate of Morphine is extremely liable to produce nausea and vomiting. Dr. Bally insists especially upon this, but he adds that by beginning with small doses, and gradually and slowly increasing their size, a full dose may at last be taken without these effects. The first dose that I ever took myself, consisted of only a quarter of a grain, and in about six hours it produced a very disagreeable vertigo and nausea, and it would doubtless have produced vomiting, had I not confined myself to my bed till the whole effect of the article entirely passed by. Even now, after having taken this dose for a great number of times, for the relief of an habitual dyspnoeal cough, it seems to be full as much as I can bear, without the production of disagreeable symptoms. The first two or three doses that I ever took in the evening, caused a headache, for some hours, the next morning. Mrs. M—T—, for pain in the stomach, took one fourth of a grain of Pelletier's Sulphate of Morphine, with relief of the pain, for which it was prescribed, within ten minutes. In about three hours it caused so much vertigo, faintness, and nausea, as to confine her to the bed, for the remainder of the day, which was seven or eight hours. A night's sleep, as is usual, entirely removed these symptoms. Miss M—A—M—, of an exquisitely nervous and susceptible temperament, took, at bed-time, for irritation in the alvine canal, one eighth of a grain of Pelletier's Sulphate of Morphine, made into a pill with extract of Gentian, and the same quantity the next morning, before rising. For the whole day, she had very troublesome vertigo, faintness, and nausea, and also frequent retching, which symptoms did not leave her till after another night's sleep; and even the day following, she had very great languor and lassitude. H—R—P—, a young lady aged 14, on account of diarrhoea, took, at 10 o'clock A. M. one fourth of a grain of Sulphate of Morphine, made into a pill with the extract of Gentian, which entirely suspended the diarrhoea, so that there was even no threatening of a return. Between one and two o'clock P. M. she began to complain of vertigo, epigastric uneasiness, and nausea, which, in a short time, in consequence of some exertion and motion, produced vomiting. After this, the vertigo, epigastric uneasiness, and nausea, increased considerably, and were attended with a distressing faintness, which soon confined her to the bed, where she was obliged to remain the whole afternoon. About six o'clock P. M. she got up, which increased all the disagreeable symptoms, and again produced vomiting. She again went to bed, had cool skin and

irregular pulse, and about seven o'clock, even whilst upon the bed, had another paroxysm of vomiting. After this, she got up, merely for the purpose of undressing. After a night's sleep, all disagreeable symptoms entirely disappeared, and the next day she was as well as usual. Dr. S—F—, for pain and distress in the stomach, connected with long protracted functional derangement of the digestive organs, took one fourth of a grain of Sulphate of Morphine, which gave perfect relief, in a very few moments, but in two or three hours occasioned vertigo, faintness and nausea. Dr. Baxter, one of the translators of Magendie's Formulary, says, 'I have lately used the Acetate of Morphine, with good effect, in dysentery; the pain and tenesmus were allayed, the complaint in some measure checked, and sleep was produced.' He adds, 'I have, however, been considerably disappointed in another case, where effects were produced, which I must leave to M. Magendie to explain.' 'I gave to a gentleman laboring under continued and troublesome general irritation of the system, half a grain of Acetate of Morphine, prepared by Messrs. Pelletier and Caventou.' 'This dose was taken at night, on going to bed, and in pill, but no sleep was produced; there was great restlessness, a desire to rise, or, as he expressed it, an inability to keep himself down, giddiness, partial delirium, and, in fact, all the symptoms of intoxication' (*an extremely inappropriate term in application to these effects*) 'from Opium were produced.' 'The next day, headache, heat of the palms of the hands, lassitude, and some febrile symptoms, were the consequence.' Three doses of Morphine, of half a grain each, dissolved in Alcohol, it is said, produced on Sertuerner, and three of his pupils, a decided stimulant effect, which was followed by prostration, numbness, and faintness. In one delicate individual, who swallowed vinegar, while in this condition, violent vomiting was immediately excited, which was followed by profound sleep, and the next day by headache, heaviness, anorexia, nausea, retching, and torpor of the intestines. From such observations as I have been able to make, I am inclined to think that the quantity of Morphine which is required to relieve an extremely severe degree of pain, is more likely to be followed by vertigo, nausea, faintness, vomiting, and headache, than the quantity of Opium which would be adequate to the production of the same anodyne effect; though perhaps my opportunities for determining this have not been sufficiently extensive to enable me to decide. But, whether Sulphate of Morphine produces disagreeable and unpleasant effects or not, appears to me to depend always upon the manner in which it is administered and managed, just as is the fact with Opium; and I consider it certain that such effects from either depend upon some sort of injudicious management, in relation to the temperament and susceptibility of the patient, and the circumstances of the disease.

Dr. Bally imagines that there is some reason to conclude that Morphine is anthelmintic, because worms have been rejected when it has occasioned vomiting. I have known worms rejected by vomiting when produced by the irritation of the fauces with a feather; but I did not, on that account, suspect that process of being anthelmintic.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, AUGUST 22, 1832.

WE presume it is generally understood that the Editor of this Journal is not responsible for any opinions that may be expressed in the communications published in it. The work is open to the free discussion of medical subjects by members of the profession, and it is not to be inferred that we adopt the sentiments of our correspondents, because we give a ready insertion to their favors. This notice is not elicited by any particular paper, but it is thought expedient that it should be thus expressly stated, and fully understood by the reader.

POST-MORTEM APPEARANCES OF A CHOLERA SUBJECT.

THE following interesting addition to the few facts on this subject now in possession of the faculty, came too late to be placed in its proper location. It is considered better to insert it here, rather than delay its publication till another week.

New York, Aug. 15, 1832.

DEAR SIR,—I have just attended an examination of one of the most malignant cases of cholera asphyxia that I have yet witnessed; and perhaps you may be interested with an account of the morbid appearances.

The subject was a very robust sailor, about forty years of age, and of intemperate habits. He was attacked with vomiting and purging on the evening of the 12th inst., and was found in a shed on the following morning, from whence he was taken to the Park Hospital, where he died in a very short time. The purging was now slight, but the vomiting and spasms were excessively severe. He had, also, the other characteristic symptoms of the disease in a prominent degree. Almost the entire surface of his body was nearly black.

The examination was commenced about ten hours after death. The surface of the body still retained its blackish hue, and the muscles, as is common, were very rigid. As their substance was divided, we observed the redness which they usually present in this disease, which contrasts very strongly with the blood in the larger arteries. The stomach was unusually capacious and rather florid. The small intestines were of a dull pinkish hue, which became less obvious in the larger. These organs were all inflated, but no where contracted. The veins of the omentum and mesentery were fuller than in the natural subject, and there was an obvious determination of blood to these viscera. The stomach contained about three gills of a fluid similar to the contents of the gall bladder, which had evidently exuded from the liver since the death of the subject, as the fluid vomited exhibited the appearance of rice water to the last moment of life. There were florid patches distributed on the mucous membrane, and its veins were fuller than natural. But I have generally

seen these appearances only in the intemperate. I examined the texture of this membrane through the alimentary canal, and we were satisfied that it was not softened, or in any respect disorganized, the reverse of which, however, I have observed in cases of apparently much less malignancy. The pyloric orifice was in a healthy state, as was also the cardiac. The mucus was natural in appearance and quantity, and equally so in the intestines. The mucous coat of the small intestines was fully injected, and the blood florid, appearing more like inflammation than congestion; though certainly not active inflammation. The large intestines were hardly in a pathologic state, and manifested no particular vascularity at the caput coli. These organs contained a light-colored fluid. The liver was unusually large, of a hardened texture, very natural in color, and containing rather less than its natural quantity of blood. The gall bladder was full of a greenish yellow fluid, and its ducts entirely pervious. The kidneys, spleen and pancreas, natural. The bladder moderately contracted, and containing more than half an ounce of a fluid resembling thin pus. The lining membrane was morbidly vascular, of a bluish appearance, but we could not detect any evidence of gonorrhœa. The veins of the diaphragm were not full. The lungs filled the cavity of the thorax. (We frequently find them very much contracted and empty.) They were black and greatly engorged with blood. There exuded from the incisions a large quantity of a muco-serous fluid. Their structure was healthy. The heart was natural, and contained in both ventricles black blood. The large arteries remote from the heart, as is common in our examinations, were entirely empty, not even stained with blood. There was no effusion in the thorax, or other cavities. The brain, quite unexpectedly to us, exhibited the most perfect appearance of health. Its blood was not even so much discolored as in other organs, and there was no more than its natural proportion. There was no effusion under the membranes, and the ventricles were only moist.

Very respectfully,

And very truly yours,

MARTYN PAINE.

J. C. Warren, M.D. Boston.

THE CASES OF CHOLERA IN THIS CITY.

ON Wednesday last two females died in this city of a disease that was said by Dr. Bigelow, and other medical gentlemen, to bear the strong marks of the malignant cholera. One of these cases occurred in Atkinson Street, and the other in South Street Place—a circumstance calculated to give the impression that the disease was breaking out in different parts of the city, and had already begun to be epidemic. On inquiry, however, it turned out that these two young women had both supped rather freely on the night previous. One of them, Miss Lord, who resided with her sister, Mrs. B., in South Street Place, received from the marketman on Tuesday morning a dozen cucumbers, of which she was particularly fond. She dined that day on milk. In the afternoon previous, she had taken tea with her friend, Miss Foster (the subject of the other case), who resided in Atkinson Street. Miss Lord took tea with her family alone, on Tuesday evening, and they prepared some minced corned beef and cucumbers, and all ate freely of them. After this meal, Miss

L. returned Miss Foster's visit, and they took some cherry rum together. Miss L. fell sick in the night, and Miss F. in the morning following, and both died in the course of the day, with symptoms of malignant cholera. So far, therefore, as any inferences are to be drawn from these cases, they should be regarded in the same light as if both had occurred in the same house, and under circumstances that could hardly have failed to excite the disease in any one at all predisposed to it.

Another consoling circumstance is, that no other case has since been known to occur; and still another circumstance to be particularly noticed, is, that these deaths have occasioned no panic among our citizens. There is still exhibited among all classes a degree of composure, cheerfulness, and discretion, that merits the highest commendation.

THE PROGRESS OF THE CHOLERA.

THE cholera is declining at New York, and advancing, but slowly, at Philadelphia.—In our vicinity there are occasional instances of a mild disease, somewhat resembling that which occurred at the State Prison, and which corresponds to what the French call *Cholérine*. Most of the cases yield readily to medical treatment—Two persons have died on board a vessel from New York, in Portland harbor. All the crew were in good health on the arrival of the vessel, excepting some diarrhœa. The night after, these two men were attacked, and both died in a few hours. Both were intemperate.—We have occasional reports of cases at New Haven, New London, Newark, New Brunswick, Princeton, the vicinity of Utica, Rochester and its neighborhood, Rotterdam, Whitehaven, Md., Washington, D. C., and other places; but Philadelphia appears to be the chief seat of the disease at this moment.—*Tuesday noon*. Several cases have occurred at Andover, Ms. Mrs. Hardy, the subject of the first case, was attacked on Saturday night and died yesterday morning.

Whole number of deaths in Boston for the week ending Aug. 18, 21. Males, 6—Females, 15. Still-born, 2.

Of consumption, 5—drowned, 1—brain fever, 1—scarlet fever, 2—bilious colic, 1—measles, 1—inflammation in the bowels, 1—convulsions, 1—cramp in the stomach, 1—dysentery, 1—cholera, 2—canker, 1—teething, 1—accidental, 1.

ADVERTISEMENTS.

BERKSHIRE MEDICAL INSTITUTION.

THE Annual Course of Lectures will commence on the first Thursday in September, and continue fourteen weeks.

Anatomy, Surgery, and Physiology, W. PARKER, M.D.

Theory and Practice of Medicine, and Obstetrics, H. H. CHILDS, M.D.

Materia Medica, and Medical Jurisprudence, E. BARTLETT, M.D.

Botany, Chemistry, and Natural Philosophy, C. DEWEY, M.D.

Demonstrator of Anatomy, J. M. HUBBARD, A.M.

Fee for the whole Course of Lectures, \$45; those who have attended two full Courses at an incorporated Medical School, pay only \$5; Graduation, \$12. Boarding, from \$1.50 to \$2 a week. The tickets are to be paid for at Matriculation, or by deposit security given.

By order of the Trustees,

S. M. McKAY, Secretary.

Pittsfield, Mass. August 13th, 1832.

NOTE.—The following authors are recommended to be used by the Students during the Lecture Term. On *Anatomy*, C. Fell, Horner, and Cloquet.—*Surgery*, S. Cooper, and W. Gibson.—*Practice and Theory*, Gregory, Good, Eberle, and Dewees.—*Obstetrics*, J. Burns, Dewees, and London Practice.—*Materia Medica and Medical Jurisprudence*, Beck, Chapman, and Eberle.—*Chemistry*, Bronde, Ferrier, and Webster.

The Berkshire Medical Institution was incorporated for a College of Medicine in 1823. By an act of the Legislature, the Medical Graduates of Harvard University are authorized to practice Physic and Surgery; and, by an additional act, any person who shall be GRADUATED A DOCTOR OF MEDICINE IN THE BERKSHIRE MEDICAL INSTITUTION by the authority of Williams College, shall be entitled to all the rights, privileges and immunities granted to the Medical Graduates of Harvard University.

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August 22, 1832.

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THE
BOSTON MEDICAL AND SURGICAL
JOURNAL.

VOL. VII.] WEDNESDAY, AUGUST 29, 1832. [NO. 3.

EXPERIMENTS WITH NARCOTINE.

Experiments for the purpose of determining the Operation of Narcotine upon the Human System, in a State of Health. By WILLIAM TULLY, M.D. Professor of Materia Medica and Therapeutics in the Medical Institution of Yale College.

Communicated for the Boston Medical and Surgical Journal.

THE first four of the subsequent experiments (according to the order in which they are arranged) were instituted for the sole purpose of determining the operative effects, upon a person in health, of a single full dose of NARCOTINE ; and it was, therefore, taken pure and in substance.

EXP. I.—A. L. B. M., of ordinary susceptibility to the impression of medicinal agents, and with his pulse at seventy beats in a minute (their natural standard), took, at half past two o'clock, P. M., on Monday, March 7, 1831, two grains of Pelletier's Narcotine, merely moistened with a little water.

At three o'clock the pulse was reduced to sixty beats in a minute, without any perceptible variation, either in force or fulness, and without any unusual sensations of any sort.

At four o'clock, the same condition continuing, four additional grains of Narcotine were taken in the same manner as the former two.

At five o'clock the pulse was reduced in frequency to fifty-two, and was obviously softer, and more readily yielding to pressure ; but there was no change in any of the sensations from their natural state.

At half past five o'clock the pulse remained of the same frequency, and, as far as could be perceived, of the same force and fulness ; but there was now a mazy and confused feel of the head, though without vertigo or headache.

Between half past five and six o'clock, tea was drank, and a light supper was taken.

At six o'clock the pulse was fifty-six, and very soft and compressible—there was considerable languor and lassitude—considerable perspiration and considerable vertigo, which last symptom was much increased, on exertion or motion of any sort.

At seven o'clock the pulse was still at fifty-six—the vertigo was much the same as at six o'clock—but there was less perspiration. There was now very considerable somnolency, a disagreeable sensation in the epigastrium, some itching of the surface, and a very prominent hoarseness.

At half past seven the pulse remained unchanged, but all the other symptoms were increased. There was, in addition, a slight thickness of speech; when walking a slight vacillating gait; and, on attempting to evacuate the bladder, it was slow in contracting, and the process required an unusually long time. When quiet, the general sensations were described as being rather agreeable.

All the foregoing symptoms, but more especially the somnolency, the thickness of speech, the hoarseness, and the staggering in the gait when walking, were gradually increased during the next two hours. There were also slight symptoms of nausea on motion, and there was dozing in a chair.

At half past nine, P. M., walked about a quarter of a mile, and could walk better the latter part of this distance than the first. At the end of this walk, the symptoms were somewhat diminished. After this, sat up till about eleven o'clock, P. M., during which period the effects produced by the Narcotine were again increased—there was some difficulty of talking intelligibly, not only from confusion of mind, but from inability to manage the organs of speech. The hoarseness continued, and there was again great difficulty in voiding urine.

At a little after eleven o'clock, went to bed, fell asleep immediately, and slept soundly all night—much as when under the influence of Opium. In the morning the mouth was dry and clammy in a slight degree, and there was still considerable torpor of the bladder; but in all other respects, a natural state.

EXP. II.—W. T., of ordinary susceptibility to the impression of medicinal agents, and with his pulse at seventy-two beats in a minute (their natural standard), took, at half past two o'clock, P. M., on Monday, March 7, 1831, two grains of Pelletier's Narcotine, merely moistened with a little water.

At three o'clock, P. M., the pulse was reduced to sixty-eight, but without any perceptible change, either in force or fulness, or any change in any sensation.

At four o'clock, there being no further change, either in pulse or sensations, took four additional grains of Narcotine, in the manner last mentioned.

At five o'clock the pulse was at sixty-four, but without any appreciable variation, either in force or fulness. At this time, the general sensations exactly resembled the first or mere antirritant degree of the narcotic operation of an ordinary full dose of the Sulphate of Morphine, which I have often used.

At half past five o'clock, pulse still at sixty-four, but otherwise unchanged—the sensations above described as exactly resembling the first or mere antirritant degree of the narcotic operation of an ordinary full dose of the Sulphate of Morphine, very considerably increased—also about as much dryness and clamminess of the mouth and fauces, and about as much hoarseness as commonly results from the last-mentioned agent.

Between half past five and six o'clock, P. M., drank two cups of tea, and ate a moderate supper, during which there was rather an increase of all the sensations and symptoms above described.

At six o'clock, P. M., immediately after tea, pulse still at sixty-four, but considerably softer and more compressible than heretofore, and likewise somewhat smaller. At this time there was considerable vertigo, and a mazy feel of the head—considerable languor and lassitude, and slight nausea—all materially increased by motion and exertion. At this time, too, it was observed that a slight chronic dyspnœa, and an accompanying irritative cough, to which I have been habitually subject for many years, was perfectly relieved, just as it always has been by a single full dose of Sulphate of Morphine. My speech was now noticed to be somewhat thick, my hoarseness increased, and on attempting to walk my gait was perceived to be unsteady and slightly staggering.

At half past six o'clock the pulse was sixty, but in other respects as when last examined—the vertigo and nausea were increased, much more especially on motion, and there was a free perspiration. On attempting now to empty the bladder (which had not been done for a long time), there was at first a total inability, from deficiency of contractile power. At last, after considerable effort, the urine began to flow, and continued to do so very slowly till it had all passed off, the process occupying more than twice the usual time.

At seven o'clock the pulse was still at sixty, and moderately reduced in force and fulness—there was positive, and, in fact, free sweating—the clamminess of the mouth, the hoarseness, and the thickness of speech, about as last mentioned—the nausea, confusion of the head, and vertigo, still increased—and there was considerable somnolency.

At quarter past seven, after a little increase of nausea, there was sudden vomiting—retched about three times—threw up a part of my supper, about as much digested as it ought to be for this length of time after eating—the process of vomiting being far easier than is common with me.

At half past seven there was another paroxysm of vomiting, very exactly similar to the last, by which another portion of my supper was thrown up—after which the somnolency was considerably increased, so that I fell asleep in my chair, a very unusual thing with me upon any occasion.

At eight o'clock there was another exactly similar paroxysm of vomiting, the process being again uncommonly easy for me. The disposition to sleep was now nearly irresistible, and while dozing in my chair I had frequent slight startings. At this time there was such a degree of sweating, as to render all the clothes next my skin quite wet.

At half past nine, P. M., on attempting to go to bed, there was another paroxysm of vomiting similar to those above described, which completely emptied my stomach, but brought up no bile, and nothing having an ill taste. After this, went immediately to bed, and fell asleep almost instantly, not awaking till two o'clock, A. M., of the 8th, when I felt exactly as after sleep produced by a single full dose of Sulphate of Morphine. After lying awake about an hour, I again fell into a light dreamy sleep, which continued till after break of day. On getting up, I felt but little appetite for breakfast, and had cool feet and hands all day. I also remained all day entirely free from any dyspnœa, or any cough, but was otherwise in a perfectly natural state, with the exceptions to be hereafter specified in my second experiment upon myself.

EXP. III.—Monday, March 7, 1831, W. T. P., of more than ordinary susceptibility to the impression of medicinal agents, and with his pulse at eighty in a minute (their ordinary frequency), took, at half past two o'clock, P. M., two grains of Pelletier's Narcotine, merely diffused in a little water.

At three o'clock the pulse was irregular, and varied from seventy-two to eighty in a minute, according as the subject of the experiment was at rest or in motion, but it was apparently unchanged in force and fulness. No sort of change in any of the sensations was perceived.

At four o'clock the pulse was stationary at seventy-two—no change in symptoms or sensations. Now took four additional grains of Narcotine, in the same manner as before.

At five o'clock, P. M., pulse still seventy-two—somewhat softer and smaller—in other respects no change in symptoms or sensations.

At half past five, P. M., there began to be a slight mazy and confused feel of the head; and, on motion or exertion, slight vertigo and a little headache.

Between this and six o'clock, drank tea, and took a light supper.

At six o'clock, pulse sixty-four, very soft—slight nausea and much confusion of the head—the confusion of the head and the nausea increased on motion or exertion—when quiet, a strong sensation of languor and lassitude—considerable perspiration, and considerable hoarseness.

At half past six, the vertigo and nausea, on motion or exertion, were so much increased as to render it necessary to lie down in order to avoid vomiting.

At seven o'clock, still obliged to keep on a bed—pulse fifty-six in a minute—slight darting pains in the stomach, continuing but a few seconds at once—perspiration as when last mentioned—very considerable itching of the surface—but notwithstanding, when quiet, sensations quite pleasurable.

At half past seven o'clock, still on the bed. There was now considerable somnolency—when dozing, there was a perception of all sorts of grotesque figures dancing before the sight—when the sleep was a little more deep, there was a sensation of falling into an immense pit, in company with the same sort of figures. When the sensation of falling existed, there was starting.

At eight o'clock, still on the bed, and still very sleepy—still the same perception of numerous grotesque figures, which, however, were not at all disagreeable or troublesome, if unaccompanied with the sensation of falling. Remained very sleepy and dozing upon the bed, but in all other respects the same, till half past nine o'clock, P. M., at which time got up. This immediately occasioned vertigo. Could not stand still, nor walk without staggering. Speech thick and indistinct—quite hoarse. Now began a walk of about a quarter of a mile—vomited a little, and in a remarkably easy manner—felt a disposition to vomit during the whole walk, but could restrain it—felt also chilly, and had chattering of the teeth on first setting out, which continued two thirds of the way, after which it gradually disappeared—knees seemed very weak the whole distance—walked quite fast, and at last became warm—a general diminution of all the symptoms produced by the walk—as soon, however, as it was

ended, the languor and lassitude, the vertigo and the nausea, again returned. On stopping, felt much fatigued, exactly as after violent running—breathing was short and hurried—was very hoarse, and could hardly speak—appeared sick to the bystanders.

About ten o'clock, P. M., very suddenly vomited thoroughly, emptying the stomach completely—the paroxysm unusually easy, and ending as soon as it began. After vomiting, all the symptoms were temporarily relieved. At this time, attempted to empty the bladder—found its contractile power much impaired, the process being difficult and slow, but not at all painful.

About a quarter past ten went to bed, and slept quietly all night, awaking but once before morning. In the morning there was a sensation of dryness and clamminess of the mouth—felt perfectly well when quiet—got up about half past six o'clock, A. M. (Tuesday, March 8th), but, on motion, still experienced vertigo—there was still a hoarseness—and on attempting to empty the bladder, found about as much torpor and slowness of contraction as the evening previous—attempted to read, but could not on account of confusion of head—walked about a little, but soon experienced nausea—vomited more than the night before, and the paroxysm was considerably more severe, but brought up no bile, and nothing leaving a bad taste.

At half past seven, A. M., obliged to lie down on a bed, after which soon felt well, and continued to feel so as long as upon the bed.

At eight o'clock (the breakfast hour) got up—felt some vertigo—had little or no appetite, but ate half a dozen very small oysters, and drank half of a small cup of coffee—again experienced some nausea, and was obliged to leave the table and lie upon the bed, upon which felt well immediately. The pulse was now fifty-six in a minute—slept about two hours—then got up, and between half past ten and eleven o'clock, A. M., walked a quarter of a mile, the symptoms, all the while, gradually subsiding. However, there was still some dryness of the mouth—some hoarseness—some nausea—some languor and lassitude—some vertigo, and some headache, though the last was trifling.

As late as twelve o'clock, M. (Tuesday, 8th), the pulse remained as unfrequent as fifty-six beats in a minute.

At one, P. M., dined with a good appetite—but some vertigo and some somnolence remained through the whole day.

After supper, felt so unusually sleepy, as to be unable to refrain from dozing. Went to bed at half past seven o'clock, and slept quietly till ten, P. M.; then awoke and remained awake for ten or fifteen minutes, after which fell asleep again, and did not awake any more till six o'clock, A. M., on Wednesday, 9th; at which time got up with headache, but had a good appetite for breakfast, after which the headache entirely disappeared.

At the commencement of this experiment, the subject of it labored under considerable chronic cough, which was entirely removed by it. During each day of the experiment, had the customary and regular discharges from the intestines. Also during the whole progress of the experiment, it was particularly observed that there was no increased heat of the system, and no increased force or fulness of the pulse. On the

contrary, the pulse became softer, and likewise smaller, but not so much so as to render it of any material importance to specify this part of the operation of Narcotine, among its valuable remedial effects.

In this experiment the dose was undoubtedly larger, in proportion to the susceptibility of the subject, than the dose used by any other gentleman; and there was accordingly greater vertigo, and this was accompanied with much more nausea, which endured for a much longer time. During the existence of positive nausea, or of actual vomiting, the sensations were, of course, unpleasant; but when there was perfect quiet on the bed there was no nausea, and all the sensations were pleasurable.

EXP. IV.—A. R. T., ordinarily extremely insusceptible to the impression of all classes of medicinal agents, except cathartics—his pulse being at sixty-eight in a minute—took (Wednesday, March 9, 1831), at eleven o'clock, A. M., eight grains of Pelletier's Narcotine, simply diffused in a little water, and immediately went about business which required active exertion both of body and mind.

In about fifteen minutes he felt a slight universal sensation of warmth, and a slight sensation of uneasiness in the epigastrium, both too inconsiderable to have attracted attention under other circumstances.

About half past eleven began to feel highly pleasurable sensations, difficult to describe, but differing from the exhilaration of Opium.

About twelve o'clock, M., there began to be considerable itching of the whole surface, more intense, however, in the nose, and on the inside of the thighs, which gradually increased till about half past two o'clock, when it had reached a high degree, after which it gradually subsided.

About half past twelve began to be sleepy, which symptom gradually and regularly increased till five o'clock, P. M.

At one o'clock (the customary hour of dinner) felt little appetite, and therefore ate but little.

At half past one, P. M., so sleepy as hardly to be able to keep awake in a chair, though in a very social company.

At two o'clock pulse fifty-five when sitting, but sixty-five when standing, and very soft and compressible. Now felt very slight nausea on motion or exertion—pupils of the eyes much contracted, and on looking at minute objects they appeared blurred—expression of the countenance strikingly dull and heavy, and something about it, beside this, which is indescribable—the mouth felt dry and clammy, but looked moist to the eye—there was no thirst.

At half past two o'clock the pulse was fifty-four while sitting—the speech now began to be thick and indistinct, and almost stammering. At this time walked about a quarter of a mile, toward the end of which the gait was observed to be staggering.

At three o'clock pulse forty-eight when sitting—a sensation of considerable languor and lassitude—so sleepy as not to be able to keep awake when still, and more especially when sitting.

From three to five o'clock, P. M., remained asleep in a chair—sleep perfectly calm, easy, and quiet—respiration perfectly natural, and exactly like that of a person awake but sitting still—very easily roused from this sleep, and as easily relapsing into it. When roused, the pupils of the eyes were observed to be still contracted—still there was considerable

itching—still a sensation of dryness and clamminess in the mouth—still thick and indistinct speech—still staggering on attempting to walk—and still the general sensations highly agreeable when quiet.

At five o'clock, P. M., pulse fifty-two, but extremely variable on slight motion or exertion. At this time walked about a little, but soon sat down again, and immediately fell asleep.

At half past five o'clock was aroused, and on a little motion and exertion there was instantaneous nausea and thorough vomiting, the paroxysm consisting of three retching efforts. The vomiting was remarkably kind and easy, and ceased as suddenly as it began. In a minute afterwards, no sensation whatever from the vomiting remained. For about half an hour there was much less somnolency; but, after this period, it again returned. At this time began walking again—and again attended to business, by which the tendency to sleep was, in a good degree, kept off. Had little appetite for supper, and took but little. After supper, made calls upon acquaintance and friends; but, on sitting down, soon fell asleep in the chair, so took care not to stay long in one place.

At nine o'clock, P. M., still much somnolency, though less than during the early part of the evening. However, even at this time, fell asleep in a chair on ceasing to converse, though there was no material difficulty in keeping awake when engaged in conversation.

The succeeding three experiments were instituted for the purpose of determining whether Narcotine, in small and uniform doses, at regular and equal intervals, would produce any stimulant effects upon the system, which it had failed to do in single full doses.

EXP. V.—A. L. B. M., of ordinary susceptibility to the impression of medicines, with his pulse at sixty-eight in a minute, took, at half past nine o'clock, A. M. (Tuesday, March 8, 1831), half a grain of Narcotine.

At half past ten o'clock, the pulse at sixty, neither increased nor diminished either in force or fulness—a slight mazy feel of the head, so as to render it inconvenient to confine the attention to a book.

At eleven o'clock, pulse fifty-six, without appreciable change in force or fulness—sensations in the head as at half past ten.

At half past eleven, pulse at fifty-two, supposed to be rather softer than natural—a calm, placid, and pleasurable sensation. Now took another half grain of Narcotine. Immediately after twelve o'clock, M., walked about a quarter of a mile.

At half past twelve, pulse between fifty and fifty-six; but no stop-watch being then at hand, could not determine the number of beats any more precisely.

At one o'clock (the hour of dinner), appetite natural, and ate as usual. After dinner, again walked another quarter of a mile.

At half past two, pulse sixty-four—considerable hoarseness—no unusual sensations. At this time took another half grain of Narcotine.

At half past three, P. M., pulse fifty-six—certainly no increase in force or fulness—hoarseness increased—some vertigo, especially on motion—considerable somnolency. Took another half grain of Narcotine. For the greater part of the succeeding hour, so sleepy as to yield to it, and

sleep in a chair, though so lightly as to be roused by the most inconsiderable noise in the room.

At half past four, pulse fifty-two, but unchanged either in force or fullness, at least as far as could be determined. Vertigo altogether relieved since sleeping. Now took another half grain of Narcotine. After this, remained in a slight mazy, dozy, and pleasurable state, unable to read, or fix the attention upon anything, till six o'clock, P. M. Between this and nine o'clock, P. M., altogether disinclined to any exertion, and not even disposed for conversation. Toward the latter part of this period slept in a chair. At bed-time was entirely unable to void any urine, partly from deficient secretion, and partly from want of contractile power in the bladder.

(To be continued.)

TYPHUS AND CHOLERA.

Sinking Typhus compared with Malignant Cholera. By THOMAS MINER, M.D.

Communicated for the Boston Medical and Surgical Journal.

'A VERY prominent symptom . . . consisted of paroxysms of *subsidentia*, or a death-like *sinking* sensation in the epigastrium, that was described, sometimes as extreme distress, sometimes as a painful sense of vacuity and faintness, sometimes as trembling or fluttering, sometimes as real pain and anguish, and at others was declared to be utterly indescribable. During the existence of these paroxysms, the coolness and numbness of the skin, the lividness of the extremities, the feebleness of the pulse, and the indications of distress in the countenance, were much augmented.'

'In many of those cases which were neglected, or treated with evacuants, or in which the early symptoms were not fully met and subdued by appropriate remedies, a peculiar and somewhat different, and usually irreparable sinking and exhaustion, occurred, after a critical effort, or in lieu of a crisis, on the third, fifth, or more commonly on the seventh day. . . . Under such circumstances, in addition to the sinking in common to other cases, the respiration was interrupted and peculiar, and much resembled that of the dying, or rather that of animals (as it is described) after a division of the *par vagum*; the inspirations occurring at intervals of several seconds, and being usually long and full, while the expirations were so short that the breath was parted with instantaneously. This *critical* sinking, in combination with morbid respiration, was often the *first warning of danger* to the patients and attendants, and it was almost invariably irremediable; for, although every symptom could be met, for a time, to the full extent, and although the most decided operative effects of medicine could be produced, and life often be prolonged for days, yet the weight of the disease could rarely be lessened, and in one of the succeeding critical efforts the same symptoms would almost inevitably prove fatal. . . . The *former* description of sinking and anxiety, which was principally referred to the epigastrium, in distinction from the *critical*, may be termed *ordinary* sinking.'^{*}

* See Essay on Typhus Syncopalis, &c. Middletown, 1825, pages 12, 13, and 24.

The first of these kinds of distress at the stomach is the peculiar *gastric sinking*, which is the most prominent symptom of typhus syncopalis, and is present in every case in which it is not disguised by delirium or coma. It was also a symptom which attracted much attention in the celebrated disease of the Milbank penitentiary, of 1823, the only variety of sinking typhus which has ever been noticed by the medical writers of Great Britain. It is thus described, in very just and forcible language, by Dr. Latham.* ‘There was a very general complaint of what was called *sinking at the pit of the stomach*.’ What this sinking is, those only know who have suffered it. All patients speak of it by the *same name*, but do not describe it further. From observing and interrogating those who complained of it, I suspected it to consist of a certain degree of actual pain, combined with ‘*a feeling which is akin to syncope*, and spreads from the stomach, as from a centre, over the whole frame. *It is a painful and overpowering sensation, as if animal life itself was hurt and lessened.*’

This gastric sinking is likewise an attendant on malignant cholera, according to the minute and very elaborate description of Broussais. His language scarcely admits of a translation. His account of the symptom will carry with it internal evidence of its extreme accuracy, to every one who is familiar with sinking typhus. ‘Le malade accuse toujours une irritation considerable à la region de l’estomac, à l’épigastre. Ces douleurs l’occupent, plus que les coliques; ces douleurs l’oppriment, l’étouffent l’empêchant de respirer; il demande qu’on le redresse, en mettant sous lui un coussin qui fasse saillir sa poitrine, en la portant avant.’†

It is a subject worthy of close attention, that in the extracts here made from the Essay on Typhus Syncopalis, there are *two* varieties of sinking described, the former of which is called the *ordinary* or merely *gastric sinking*, and the latter *critical sinking*. The former attends every case of sinking typhus, in which the patient has his reason sufficient to describe his feelings, in some period of the disease. The latter, or *critical sinking*, *may be* the first symptom which produces any alarm in the patient or attendants, though it is usually the consequence of the first kind of sinking, which has been suffered to remain under feeble or improper treatment. It is this critical sinking, attended with a collapse of all the powers of life, and often with a complete asphyxia, or with a deep, apoplectic coma, that we are so anxious to avoid in sinking typhus. *Ordinary* gastric sinking, except when it is so severe and gives such a shock to the system as to destroy life immediately, recurs by paroxysms in typhus syncopalis, being usually subject to remissions, and sometimes to complete intermissions, and a perfect collapse does not generally ensue, though it is occasionally the fact, till the disease has gone so far as to make a critical effort. In malignant cholera, as soon as the disease is fully developed, *ordinary* gastric sinking and *critical* sinking seem to be blended together in *one* general collapse, which is not liable to recur in successive paroxysms. The patient is either brought out of the single paroxysm, which in this case is not very liable to return, or he is fatally sunk by it, and dies. In the *common* cases of distinctly marked cholera,

* See Johnson's Medico-Chirurgical Review, July, 1825.

† See *Gazette des Etats Unis*, June 27, and the two succeeding papers, 1832.

this critical sinking and collapse appear as early as in the *severest* description of sinking typhus. It is, however, probable, that ordinary sinking does usually attend the premonitory symptoms of cholera, though they are not noticed in the common accounts. An intelligent friend, who has two or three times been threatened with the precursors of cholera, has described this sinking pretty accurately, as it occurred in his own person.

The *general* principles of treating sinking typhus and malignant cholera are unquestionably the same; but there are various, and some of them very important, circumstances to be considered in their application. In perusing any account of a new or singular disease, we are apt to select a few of the severest cases, and consider them as the model which is to be followed in every other example of the complaint. We, therefore, are liable to distort the meaning of the writer, and do injustice to his practice—we mistake his exceptions for his general rule. Whoever reads with attention the present writer's Essay on Typhus Syncopalis will find, notwithstanding all that is said upon the fatal effects of injudicious vomiting and purging, and the strenuous manner in which the most vigorous support by opium, alcohol, &c. is enforced, that about three fourths of the cases of sinking typhus, in 1823, were at first purged, very cautiously it is true, with calomel, and that a very large majority of the patients recovered under a practice quite mild *in degree*, provided it was right *in kind*. Nothing is more absurd or fatal, than a routine which treats every case alike, more especially if it consists in an efficient course of the most active articles. The state of the brain in sinking typhus, and the liability to delirium or coma, are an important consideration, and demand as much attention as the state of the lungs in pneumonia. The state of the abdominal viscera, the defect of biliary secretion, and the peculiar torpor of the hepatic system, are equally prominent in the treatment of malignant cholera. The preponderance of *irritability*, or of *torpor*, in the whole or particular parts of the system, or the sudden transition from one state to the other, makes a very essential item in the treatment of every acute, atonic disease. As before stated, the *general* indications in sinking typhus are founded upon the *extreme exhaustion*, which actually exists in the worst cases, or into which the patient is liable to fall after the least debilitating measure. In cholera, it is our principal aim to *overcome the torpor*, which amounts to an almost complete paralysis of the powers of life. In this disease, debility, though it ought not to be trifled with, and increased by unnecessary and rash refrigeration, depletion, and evacuation, is, nevertheless, an object of much less importance than in sinking typhus. In the very severest cases, the exhaustion and torpor are alike in both diseases; but in most instances, as a general rule, we feel tolerably safe when we have overcome the torpor of cholera, and when in sinking typhus we are able to sustain the system under the exhaustion. It is not very uncommon in sinking fevers to find patients complaining of burning heat, and begging for cold water, when their mouth, breath and skin are cold. Hot brandy and water, with laudanum and essential oils, soon extinguish this *sensation* of heat, and make the patient wish for warm articles. This false sensation of heat is a prominent symptom of cholera.

From the experience and observation of twenty-six years, the *general treatment* in typhus syncopalis has become as *decidedly settled* as the

antiphlogistic regimen of Sydenham in the distinct or entonic smallpox. Under the most approved management, it rarely is fatal in one case in ten. The recent success in New London has demonstrated anew the utility of the most approved practice. The immense mortality in cholera, amounting to a third or a half of all the cases in which the disease is fully developed, most conclusively shows that either its principles are not understood, or there is some very essential mistake in their application. Insusceptibility to the curative action of ordinary means, is the characteristic of a malignant disease. The usual remedies for similar symptoms, in ordinary non-malignant cases, on the one hand, either make no visible impression; or, on the other, instead of *counteracting*, they *coincide* with the diseased action, and increase the morbid condition. In the former case, our analogies merely fail us; but in the latter, they seem to be entirely reversed. We are not, however, to despair, and timidly and inactively to relinquish our patients to their fate, or to expose them to the rashness of empiricism, in addition to the danger of their disease. Similar anomalous cases and irregular diseases must be investigated, and by this means a set of principles and general rules is to be collected. The remainder of this essay will be devoted to examples of this kind, which may perhaps cast some light upon the subject.


A very intelligent friend and able physician has frequently described, in conversation, a variety of pneumonia typhodes, which occurred in his practice about twenty years ago. A certain part of the severe cases, perhaps a third, under any treatment which he could devise, would almost invariably prove fatal. What surprised him most was, that in this set of patients, various and even opposite practice proved not only to be equally unsuccessful, but seemed to be *about* equally safe. The patients would generally live a certain time, apparently not much influenced by the treatment, and at last fail. A deobstruent, diaphoretic, and supporting course, succeeded in the other forms of the disease. In the severest cases, the great difficulty arose from the torpor, which, in nearly an equal degree, resisted the common remedial effects of treatment that seemed to be the most promising, as well as the injurious effects of a management that was apparently improper. In defiance of everything that was attempted, the disease would have its course, and finally prove fatal. The torpor of cholera very greatly resembles that of this obstinate pneumonia; and in the worst cases, all kinds of practice that are usually employed seem to be nearly indifferent, doing very little good or harm, being alike ineffectual.

When this pneumonia appeared, it was a new disease to all the physicians who saw it. They were not then, by any means, prepared to meet the oppressive torpor, with the same knowledge and dexterity that they would now possess in similar circumstances. Torpor, when it is combined with debility, is now found to be best overcome by deobstruents, assisted by *acrid* excitants, diffusible stimulants, and regular uniform support. In the language of the schools, we need not only the *basis*, but the *adjvans*, and the *corrigenes*. Turbith mineral, calomel, arsenic, oil of turpentine, colchicum, sanguinaria, or actæa, &c. according to the part of the system which labors most, as well as to remove the general torpor, in very large doses, may be the *basis*; but it is not likely to pro-

duce its effect unless it is assisted by opium, alcohol, capsicum, or peppermint, &c. as an *adjuvans* or *corrigens*. Or, the latter may be the *basis*, and the former the *adjuvans* and *corrigens*. When great torpor has been combined with sinking typhus, a persevering and decisive use of *acid* articles has often answered, in apparently desperate cases. Ten minims of oil of mint, made into an oleo-saccharum, given every hour, have succeeded. Ten minims of Fowler's solution an hour, have also restored the patient. Enemata of half an ounce of oil of turpentine, with the same or half the quantity of laudanum, repeated every two or three hours, have been frequently attended with salutary effect. In torpid pneumonia, half a drachm or drachm doses of calomel, qualified by large doses of opium, half ounce doses of the tincture of sanguinaria, or the equivalent in actæa, or wine of colchicum, or large quantities of turbith mineral, with strong support under their operation, have frequently changed and removed the morbid condition of the system. All these measures, however, require the assistance of external applications, with the *uniform* support of opium and alcohol, and in general, with a *regular* and *constant* supply of *hot* broth, milk-porridge, or other suitable nutriment. Such acid and pungent articles lose half their effect, and are often unsafe, unless the stomach is very frequently (it is a good rule after every dose) supplied with proper nutriment. It is apprehended, that there is usually a greater failure in administering sufficient nutritious liquid food, as hot as it can be borne, and seasoned with pepper or other aromatics, than in the employment of medicine. As a general rule, where *torpor* is extreme, only *moderate*, but uniform, quantities of opium are required, and a *free* use of alcohol, essential oils, and acid stimulants, is demanded; but when *irritability* is the most prominent, the *main* reliance is on opium, without being very scrupulous as to weight or measure. At any rate, it should be given freely enough to control the vomiting, diarrhœa, pain, and spasms, whatever may be the dose, and however frequently its repetition may be demanded. If, in consequence of this treatment, the local symptom should be transferred to some other organ, as is sometimes the case, it is then to be combated by the means which are found to be most effectual in removing local *atonic* affections. Should there supervene too great reaction—which, however, is not very common—it is the reaction of debility, and *not* of entony. These are all-important considerations, in the treatment of the sequel or the consecutive fever, which may follow a paroxysm of sinking in any asthenic disease.

When it is recollected that cases of critical sinking in typhus syncopalis have been met with, in which the pulse has been wanting at the wrist for eight hours, or in which it has beat only twenty-seven times in a minute, and also of the employment of two drachms of laudanum every hour, and of one drachm of tincture of stramonium every two hours for four or five days, as well as those in which oil of turpentine, other essential oils, capsicum, mineral solution, &c. have been used so freely, and yet the patients recovered, we have the strongest inducement in favor of the vigorous and persevering application of the appropriate remedies. Though the critical sinking, or extreme collapse, is always to be dreaded, and every timely and reasonable exertion is demanded to prevent its occurrence, yet, when we meet with it, our exertions are to be increased,

and it is confidently believed, if we make them upon just and rational principles, they will be often crowned with success.

 The writer not having kept a copy of the late communication upon this subject by him, is unable to compare the two essays, and to correct this by the other. He therefore strongly suspects that in the present article there will be found several repetitions, for which he must beg the indulgence of the candid reader.

Middletown, Conn. August 13, 1832.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, AUGUST 29, 1832.

SALINE INJECTIONS IN CHOLERA.

WE have, in the number of the London Medical Gazette for June 9th, an account of four cases in which saline injections into the veins were employed in cholera. In all, the symptoms previous to the employment of the remedy indicated a fatal termination, and the injection seems to have been regarded as a dernier resort. In the first case, which occurred in one of the London hospitals under the care of Mr. Tweedie, the mixture employed was as follows : muriate of soda, 3ij.; carbonate of soda, ʒij.; water, 60 ounces—temperature 110 to 115 deg. Of this preparation, fifty ounces were slowly injected. The pulse became stronger, and the patient expressed himself relieved. This amendment was not permanent ; the symptoms of collapse returned, and two hours afterward the injection was repeated. Improvement was equally manifest as before, and proved equally transitory. The patient soon sunk, and died about two hours after the second injection.

The second case related occurred in a different hospital. The patient was a woman employed as nurse. About three pints of the injection were thrown in, of the same strength as that last described : after which the pulse rose, becoming fuller, and the blood was more florid. The apparent benefit, however, was but temporary, and the case terminated like the first.

The third case, which occurred at Leith, in Scotland, was that of a female, very intemperate in her habits, and in the sixth month of pregnancy. At the time of employing the remedy, the cramps were severe in her legs, there was extreme restlessness, and every indication of sinking. Under these circumstances, lb.ijss. of injection were administered at the temperature of 105 deg. Under the use of this, the symptoms were ameliorated ; the countenance, which before was death-like, brightened up, and she began to converse. This continued, however, only for a

short time, and she shortly relapsed into her previous state. After an interval of two hours the injection was repeated and lb.vii. administered. The effect of this was also very striking. Before it was finished, the pulse had returned to a healthy fulness and firmness. Seven hours afterward, the countenance having collapsed and the breathing become difficult, lb.v. were injected. The first few ounces which were thrown in caused pain at epigastrium, and faintness, and the pulse became imperceptible; the injection was then suspended for a few moments, and the pain abated. She expressed herself relieved by the operation, but the vomiting continued. The following day she began to improve, and eventually recovered.

A fourth case also occurred at Leith, and is related by Dr. Craigie of that place. The patient was a boy ten years of age. At the time of employing the treatment the pulse was quite imperceptible; the face bedewed with cold perspiration, the hands and feet cold. Six pints of the solution were employed, and injected in the course of twenty minutes. During this process the pulse returned to the wrist, the coldness of the extremities wore off, and the countenance improved. This favorable effect continued about half an hour, when the tendency to relapse became evident. Three hours later the pulse had again become imperceptible. The injection was repeated to the amount of lb.iiij. with equally marked amendment as before. The effect of this continued about two hours; he then relapsed, and soon sunk. It was remarked that large watery evacuations from the bowels came away soon after the last injection.

Some other circumstances in regard to the above cases mentioned in the reports, will aid us in determining the value of the remedy. In the post mortem examination of the first case it was observed, that although nearly a gallon of fluid had passed into the vein, the blood in the right auricle of the heart and in every part of the body was of a consistence like currant jelly, while the serous surfaces were quite dry, and a large quantity of fluid was found in the intestines; showing that the absorption was very rapid, and that the sensible properties of the blood were not altered by the saline ingredient. It is also worthy of remark how instantaneous, as it were, was the good effect produced, and how short the period during which it continued. Surely, neither of these facts accord with the supposition that the effect depended on any chemical change produced in the blood itself, or any of the secreted fluids. Perhaps, therefore, pure water, or any other mild liquid at the same temperature, might have been substituted, and the effect would have been substantially the same. An opinion, however, founded on so small a number of cases cannot be expressed with entire confidence; and, in regard to these, the apparent improvement by which the exhibition of the remedy was followed, on whatever principle it be explained, is clearly an encouragement to its repetition. We observe it generally noticed in the New York papers,

that saline injections have also been tried there with successful result ; but the particulars of the cases are not mentioned, and we are unable to say, at present, how far they afford an argument in favor of the treatment. Measures have been taken, however, to procure authentic accounts of these cases, which we hope soon to submit to the profession.

CASE OF MALIGNANT CHOLERA, WITH APPEARANCES ON DISSECTION.

THERE have been but three cases of malignant cholera reported in this city, and these were all fatal. The following is an account of appearances on dissection of one of the first cases. We shall endeavor in our next to offer some notice of the post-mortem examination of the other two.

M. F., aged 37, widow, in good circumstances, and temperate in habits, living in an old wooden house out of repair, and which has been regarded as unhealthy on account of damp state of cellar, was seized about 11, A. M., on the morning of 15th August, with violent cramps in stomach, followed by vomiting and purging. The spasms soon became universal, and were brought on by the least motion, even of the head to drink. Vomiting and purging both ceased before 1, and after this only one stool, half an hour before death. The spasms continued throughout; thirst urgent. Lips, and more or less of the face, sublivid; mind retained till towards the last; voice greatly altered about three hours before death, which occurred at half past six, P. M. Forty minutes after death, right hand and fore arm affected with slight clonic spasm, occasionally becoming tonic. Surface about knees and below, warm; upper extremities cold and moist; faint purplish tinge or stain of hands, not elsewhere. Countenance tranquil, rather sallow, pale, not dark. Body not generally rigid; arms half-flexed and slightly so. After the examination, the rigidity increased; most noticed on left side of neck and front of thighs. Abdomen not distended, rather tense. *Thorax.* Heart of moderate size; color not remarkable: in left side, some soft, dark coagula, with some liquid blood. Aorta as far as arch contained blood, very dark, not 'tarry,' with a few coagula. Lungs, crepitant; left lower lobe only engorged, and that not greatly. *Abdomen.* Peritonæum felt somewhat pasty; more or less dryish everywhere; the vessels ramifying beneath, through the whole course of small intestines, being injected with dark blood. Stomach and intestines not distended or contracted. Color of stomach moderately red; most so in pyloric half. Internal surface of intestines uniform rosy, from pylorus to cæcal valve. Large intestines less red than small. Thickness of mucous membrane rather increased; that of stomach very easily rubbed off; resembled coagulated lymph on a serous membrane, or the false membrane found on trachea in croup. Mucous membrane of small intestines rather firm than otherwise. Stomach contained 3 iij. of opaque, yellowish, homogeneous fluid. Contents of small intestines about lb. j. fluid yellowish white, nearly purulent in appearance, turbid; in lower half, thinner, with more distinct flakes suspended in it; these last somewhat resembled mucus, but were perfectly opaque, of a dirty white, and rather pasty in consistence. In large intestines this fluid degenerated into rice-water, as commonly described; quantity here about lb. j. No feces in intestinal cavity, nor any trace of bile except in the stomach. *Liver* considerably engorged; gall-bladder about usual size, and half full of very dark, green, thick bile; duct permeable to middle of cystic, at which point it was divided in dissection. Kidneys smaller than usual, rather soft; pelvis of the right contained a little opaque, dirty white, thick fluid. Bladder much contracted; cavity sufficient to contain a nutmeg; contained no urine, but only a drop of fluid, such as found in the kidney. Brain not examined.

ACETATE OF LEAD IN CHOLERA MORBUS, OR HUMID MORTIFICATION.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I have, in the course of twenty years' practice, used sugar of lead, combined with opium or Goulard's extract of lead with laudanum, with the happiest effect and the most decided advantage, in preference to the usual prescription recommended in these cases. By publishing this small contribution in your useful work, it may perhaps be suggested to some one else to apply these articles to the formidable scourge now visiting our happy country. The following are my recipes:—

R. Acetate of Lead, ʒi.

Gum Opium, gr. iij.

M. f. Pil. No. xii.

R. Goulard's Extract of Lead,

Tincture of Opium, aa ʒ ss.

Ten drops every 10 or 15 minutes.

One of the pills every 10 or 15 minutes, until puking and purging subsides; or the same until the mortification or vesicle separates from the live flesh.

I have usually given castor oil and mint next day, so as to operate on the bowels freely.

W. G.

Columbia, Ala.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I have observed in your Journal of the 13th inst. a letter addressed by me to Dr. L. A. Smith, of Newark, N. J., in relation to the treatment of cholera patients in the stage of collapse, by means of frictions of mercurial ointment, camphor and capsicum. My object in the present communication is, to disclaim any credit in the suggestion of this remedy, it belonging exclusively to Stephen C. Rae, M.D. Principal Physician of the Greenwich Hospital, who has employed it heretofore successfully in the treatment of enteritis. A simple regard to justice induces me to make this statement, hoping you will give it the same publicity as the letter above alluded to.

New York, August 22, 1832.

Respectfully yours,

CHAS. A. LEE, M.D.

Erratum for Dr. Miner's last paper.—Sydenham's method of employing opium to prevent coma is in page 372 of Rush's edition, and not in page 115, as mentioned by mistake in the manuscript, and in page 23, in the note, of this Journal. Dr. Rush's comment is as follows:

'The account given by our author of his having prevented coma by means of opium, shows the relative operation of that medicine to the state of the system. In an elevated state of the bloodvessels of the brain above the par of health, the same dose of opium will produce delirium, which in a state below that standard will remove coma, and produce healthy wakefulness. This is one among many other instances mentioned in the dedication of this work, in which our author's facts, relative to the use of opium, accord exactly with the modern belief of its belonging to the class of stimulating medicines.'

Dr. M. wishes to correct another oversight in his communication. Cramp in the calves of the legs and extremities is so common a symptom, that it ought to be mentioned as one of the distinguishing traits of epidemic cholera.

We regret that, in consequence of the accidental omission of a line in Dr. Tully's communication, we are under the necessity of requesting the reader to make the following very important correction. On page 7, line 11, for 'I am confident, from multiplied observations, that all narcotics are necessarily stimulants,' read 'I am confident, from multiplied observations, that there is no sort of foundation for the dogma that all narcotics are necessarily stimulants.' Dr. T.'s letter, containing additional remarks on the subject of this sentence, is excluded from this number by want of room.

Whole number of deaths in Boston for the week ending Aug. 25, 28. Males, 11—Females, 17. Still-born, 2.

Of consumption, 7—teething, 1—nervous fever, 1—scarlet fever, 2—cachexy, 1—dropsy in the brain, 2—child-bed, 1—apoplexy, 1—dropsy, 2—inflammation in the bowels, 1—intemperance, 1—liver complaint, 2—palsy, 1—drowned, 1—typhus fever, 2—malignant cholera, 1.

HARVARD UNIVERSITY.

MASSACHUSETTS MEDICAL COLLEGE.

The Medical Lectures in Harvard University will begin in the Medical College, Mason Street, Boston, on the third Wednesday in October, at 9 o'clock, A. M., and be continued four months.

Anatomy and Surgery, Dr. WARREN.

Chemistry, Dr. WEBSTER.

Materia Medica, Dr. BIGELOW.

Midwifery and Medical Jurisprudence, Dr. CHANNING.

Demonstrations in Anatomy, Dr. LEWIS.

Theory and Practice of Physic and Clinical Medicine, Drs. JACKSON and WARE.

At a meeting of the Medical Faculty, held February 17th, 1832, it was

VOTED: That in all future examinations for the Degree of Doctor in Medicine, examinations in Natural Philosophy and in the Latin language shall be conducted in the same manner as the examinations in the other branches required by the Statutes; and that an acquaintance with these branches will be insisted on as requisite for the admission to the degree.

The examination in Latin will be made in Cicero's Select Orations; and in Natural Philosophy, in Grund's Elements of Natural Philosophy.

WALTER CHANNING,

Dean of the Medical Faculty.

Boston, July 24, 1832.

The Massachusetts General Hospital is open to the Medical Class for the practice of Medicine and Surgery.

The amount of Fees will be the same as heretofore.

BERKSHIRE MEDICAL INSTITUTION.

The Annual Course of Lectures will commence on the first Thursday in September, and continue fourteen weeks.

Anatomy, Surgery, and Physiology, W. PARKER, M.D.

Theory and Practice of Medicine, and Obstetrics, H. H. CHILDS, M.D.

Materia Medica, and Medical Jurisprudence, E. BARTLETT, M.D.

Botany, Chemistry, and Natural Philosophy, C. DEWEY, M.D.

Demonstrator of Anatomy, J. M. HUBBARD, A.M.

Fee for the whole Course of Lectures, \$45; those who have attended two full Courses at an incorporated Medical School, pay only \$5; Graduation, \$12. Boarding, from \$1.50 to \$2 a week. The tickets are to be paid for at Matriculation, or competent security given.

Pittsfield, Mass. August 13th, 1832.

By order of the Trustees, S. M. McKAY, Secretary.

NOTE.—The following authors are recommended to be used by the Students during the Lecture Term.—On Anatomy, C. Bell, Horner, and Cloquet.—Surgery, S. Cooper, and W. Gibson.—Practice and Theory, Gregory, Good, Eberle, and Dewees.—Obstetrics, J. Burns, Dewees, and London Practice.—Materia Medica and Medical Jurisprudence, Beck, Chapman, and Eberle.—Chemistry, Bronde, Ferrier, and Webster.

The Berkshire Medical Institution was incorporated for a College of Medicine in 1823. By an act of the Legislature, the Medical Graduates of Harvard University are authorized to practice Physic and Surgery; and, by an additional act, 'any person who shall be graduated a Doctor of Medicine in the BERKSHIRE MEDICAL INSTITUTION by the authority of Williams College, shall be entitled to all the rights, privileges and immunities granted to the Medical Graduates of Harvard University.'

THE

BOSTON MEDICAL AND SURGICAL
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VOL. VII.] WEDNESDAY, SEPTEMBER 5, 1832. [NO. 4.

EPIDEMICS.

Remarks on the Etiology and Character of Epidemics. By J. A. ALLEN, M.D., of Middlebury, Vt.

Communicated for the Boston Medical and Surgical Journal.

THOSE diseases which have some strong resemblance in their general characters, and attack many individuals in a large extent of country at about the same time, are commonly called *epidemics*. If all, or about all the inhabitants of a country be similarly attacked, at or near the same time, with a particular complaint, it is more properly called a *pandemic*. When any particular section of a country is liable to produce diseases of a similarity of character in many individuals, they are said to be *endemic*; and a complaint which is confined to any particular class of persons, is said to be endemic to that class of persons. Thus, the scurvy is said to be endemic to sea-faring men; the goitre, connected with that peculiar intellectual imbecility which characterizes the *Cretan*, is endemic among the Alps; and agues, or intermittent and remittent fevers, are endemic to low, marshy countries—as Lake Champlain valley, in Vermont, where these complaints are endemial.

There is a similarity of character in the exciting or operative influence of endemics and epidemics—they have a tendency to monopolize, or to convert most other diseases which occur during their prevalence, within their sphere of action, into those complaints of their own kind. In malarious districts, it is obvious, that most febrile diseases of a few days' continuance are apt to ape the endemic of those districts. Hence fevers, for instance, on Lake Champlain valley, are, in general, more paroxysmal than those of the same nominal character on Connecticut river valley. The malaria of this district seems, in a measure, to influence febrile complaints, although they do not assume the true character of agues or remittents. The same disparity may probably be observed between any other malarious and non-malarious districts. An epidemic influence is, in some measure, analogous, but more powerful, and prevails to a greater extent. During the prevalence of an epidemic, most other diseases apparently disappear, or become converted into the prevailing malady. In epidemic periods this is generally the fact, whether the number attacked be more or less. At most of the places where the cholera has prevailed, this law of epidemics has been strikingly evinced.

In some places, as at Petersburg, the deaths, although not augmented beyond the ordinary number in other years, at the same season, have almost all been of the *spasmodic cholera*. The same was observed during the prevalence of the yellow fever in this country; and also of the late spotted fever, or sinking typhus, when they occurred epidemically; and Sydenham gives us to understand that the same was true of all other diseases which he had witnessed, when they happened as epidemics.

The etiology of epidemic, as well as endemic diseases, constitutes an interesting subject of inquiry. In respect to the cause of the latter, especially such endemics as agues and remittents, it is generally admitted that malaria, or an evolution from the earth of a certain deleterious something, is the cause of these maladies; but in respect to the former, it is a desideratum which the sagacity of the Coan sage could not certainly determine, nor have subsequent observers been much more fortunate. In the course of their investigations, however, many facts have been observed, from which it may be yet in human power to establish some useful and important conclusions. Hippocrates, the father of medicine, attributes epidemic pestilence to a *divine something* in the air; and Sydenham, after a long life spent in useful observations, came to the conclusion that epidemics 'originate from some occult and inexplicable changes wrought in the bowels of the earth itself, by which the atmosphere is contaminated with certain effluvia, which predispose the bodies of men to one or other form of disease.' This state of the air has appropriately been called an epidemic constitution of the atmosphere. More recently (1800), Dr. Webster, the American Lexicographer, has, with much labor and ingenuity, collected an immense number of facts to show the coincidence between the appearance of *comets* and meteors, the occurrence of earthquakes, the eruptions of volcanoes, the conjunction of certain planets, &c. 'All the comets,' affirms Dr. W., 'which have approached this earth, especially those which have passed very near, have been preceded, attended, or followed, by most extraordinary effects: as great heat and drought in summer, and *severe cold in winter*; deluging rains, violent tempests, and unusual tides.' Dr. W. quotes Aristotle, Pliny, Seneca, and others among the ancients, to prove that great commotions in the physical world are the general concomitants of the appearance of comets. Dr. W. supposes the action within the bowels of the earth may proceed for years, and manifest itself by means of insensible vapor, or miasm, or electric discharges, and so affect the atmosphere as to impair the principle of vegetable and animal life. One thing is very certain, that the *pestilential principle*, whatever it is, and from whatever source it arises, does, at certain times, pervade, not only the air, but the water also. The proofs of this are abundantly numerous and convincing. In all the great plagues which have afflicted the human race, other animals, as horses, cattle, sheep; sometimes cats, dogs and fowls, together with fish in the rivers and the ocean, and even vegetables, have borne their share in the calamity. Thus, preceding the great plague of 1665, in which year London lost 96,000 inhabitants, there was experienced, in 1664, great mortality among cattle: and in this year appeared a comet; another in 1665; and a third in 1666. In 1664 began an

eruption in *Ætna*, which lasted, with various degrees of violence, till 1669, when it ended with a terrible explosion. The winter of 1664-5 was terribly severe in England. The Thames was a bridge of ice; and in January happened earthquakes in Coventry and Buckinghamshire. These facts will suffice to show the concurrent effects in the natural and animal world, during this pestilential period. Corresponding phenomena can generally be traced about the time of all other great pestilential scourges.

The present prevailing epidemic cholera has been attended, through all its destructive course, by the same accompaniments. In Hindostan, in 1817, numbers of cattle are said to have died. At Calcutta, in 1827, numbers of dogs were attacked and died in the streets. Mr. Chalmers says, that in the towns in India near the hills, where cholera was so fatal, a disease occurred among the cattle which kept pace with, and often exceeded in mortality, that of the human species. Dr. Rankin states, that goats and camels were affected and died during the prevalence of the cholera at Rajputana; and when it prevailed at Moscow, Dr. Jæhnichen says, poultry, chickens, turkeys, &c. were affected. It is said in Prussia that multitudes of fish died during the prevalence of the epidemic. In this country, an unprecedented mortality has been experienced among sheep and other animals. Fowls, such as swallows, doves, &c. have died, as we have been informed, in numbers, at Montreal, Plattsburgh, &c. The seasons, too, for some time past, have been remarkable for their distemperature, uncommon and severe—sudden high winds, and unprecedented inundations. It appears from Dr. Jameson's Bengal Reports, that for some years before the epidemic cholera made its appearance in 1817, there had been excessive heavy rains, great droughts, storms, and earthquakes. Mr. Scott, in his Madras Reports, also speaks of the marked intemperature of the seasons preceding and accompanying the appearance of the disease.

In fine, these concurrent events plainly appear to indicate one general and common cause. The known fact, that the conjunction of planets, or the approach of *a comet*, varies or diminishes the density, and consequently the pressure of the circumambient air upon the surface of the earth, thereby causing an augmented rise of tides and winds, and also a more ready escape of any subtle and unwholesome or pestilential effluvia from the interior of the earth, seems, indeed, irresistibly to force upon us the conclusion that epidemics have a terrestrial origin, and that the approach of comets to the earth is a great link in the chain of their causation.

‘But let some prophet or some sacred sage
Explore the cause of great Apollo's rage.’

August, 1832.

EXPERIMENTS WITH NARCOTINE.

(Concluded from page 44.)

Experiments for the purpose of determining the Operation of Narcotine upon the Human System, in a State of Health. By WILLIAM TULLY, M.D. Professor of Materia Medica and Therapeutics in the Medical Institution of Yale College.

Communicated for the Boston Medical and Surgical Journal.

EXP. VI.—K. T. W., of ordinary susceptibility to the impression of medicine—pulse at seventy-two, its natural standard—took, at half past nine o'clock, A. M. (Tuesday, March 8th, 1831), half a grain of Narcotine, diffused in a little water.

At half past ten, pulse sixty-four, and neither increased nor diminished in force or fulness—no sensations different from ordinary.

At eleven o'clock, pulse sixty-four—a sensible and obvious diminution both in force and fulness, though not a great one—no variation in the sensations from their natural state.

At half past eleven, pulse fifty-six—evidently still softer and smaller—no new sensations. Now took another half grain of Narcotine.

At half past twelve, pulse fifty-six—as respects force and fulness, the same as at the last examination—no new sensations.

At one o'clock, P. M., ate an ordinary dinner, with an ordinary appetite.

At half past one, P. M., took another half grain of Narcotine.

At half past two, pulse fifty-six—no appreciable difference in force or fulness, when compared with the last examination—considerable hoarseness—no unusual sensations. Now took an additional half grain of Narcotine.

At half past three, pulse fifty-six—force and fulness about as at the last examination—hoarseness rather augmented—considerable somnolency, so that it is difficult to confine the attention to a book. Took another half grain of Narcotine. For the succeeding half hour there was so much somnolency as to have repeated naps in a chair.

At half past four, P. M., pulse fifty-six, and in other respects the same—the somnolency considerably relieved by late naps. Took another half grain of Narcotine. From half past four, P. M., to the beginning of the evening, there was no very considerable somnolency. Drank tea at dusk—then walked a quarter of a mile. Toward the latter part of this walk, suddenly seized with nausea and vomiting, which passed by as suddenly as they came on.

About half past eight, P. M., walked again, during which was again seized with nausea and vomiting, which again passed off with equal suddenness. Both paroxysms of vomiting remarkably easy, only the supper which had been recently taken being rejected, and without any bile, or anything having an ill taste. The vomiting was followed by singultus for a short time.

About half past nine, P. M., vomited again, the paroxysm coming on and disappearing in an equally sudden manner, producing no straining, and leaving no sensations indicative that it had taken place. During the

whole evening there was considerable somnolency; so much, indeed, that, independent of the walking, it would have been difficult to keep awake. Went to bed about ten o'clock, and finally could not get asleep for a considerable time. Ultimately, however, had a good night's rest, not awaking till morning. Was perfectly well the next day. Had no discharge from the intestines either upon the 8th or the 9th.

EXP. VII.—W. T., with his pulse at seventy-two (its natural standard), took, at half past nine o'clock, A. M. (Tuesday, March 8th, 1831), half a grain of Narcotine.

At half past ten, pulse sixty-four, neither increased nor diminished in strength or fulness—no sensations different from the natural.

At eleven o'clock, pulse still at sixty-four—perhaps a little smaller and softer, but no great change—no sensations different from the natural.

At half past eleven, pulse sixty-four—no difference in the other qualities from their condition when last examined, and no peculiar sensations. At this time took another half grain of Narcotine. Dined, as usual, about one o'clock, P. M. At half past one took another half grain of Narcotine.

At half past two, pulse sixty-four—in other respects, as when last examined—no sensations different from ordinary—change of voice, and considerable hoarseness. Took another half grain of Narcotine.

At half past three o'clock, P. M., pulse fifty-six—force and fulness the same as when last examined—have been engaged the last hour in hearing a recitation, which involved considerable discussion, occupying the mind intensely, and occasioning considerable speaking—hoarseness much increased. Now took another half grain of Narcotine. During the next hour, took a walk of half a mile, and attended to some business.

At half past four o'clock, P. M., immediately after the walk, pulse seventy-two—feel much languor and lassitude—hoarseness as when last mentioned. Took another half grain of Narcotine.

At six o'clock, P. M., had a mazy and somewhat vertiginous sensation in the head, but it was rather pleasant than otherwise—at the same time there was considerable somnolency. Throughout the whole evening, till nine o'clock, P. M., was uncommonly sleepy, so as to have considerable difficulty in keeping awake—from nine till midnight, was not at all sleepy—for the remainder of the night, slept as usual. N. B. Have had no discharge from the intestines, and no tendency to one, since the commencement of experiments with the Narcotine, on the morning of Monday, 7th, though am ordinarily more inclined to a lax than to costiveness.

The next experiment was instituted, for the purpose of determining whether a larger dose of Narcotine than was employed in the last detailed cases, given at regular and equal intervals, might not produce a stimulant effect upon the system.

EXP. VIII.—A. L. B. M., pulse at seventy-two, took, at half past nine, A. M. (Friday, March 11th, 1831), one grain of Narcotine, simply diffused in water; and at half past ten, took another grain in the same manner.

At half past eleven, pulse fifty-six—no change in sensations. Took another grain of Narcotine.

At half past twelve, pulse fifty-six—slight degree of mazziness of the head—calm, placid, and pleasurable sensations. Took another grain of Narcotine.

A little before one o'clock, walked a quarter of a mile—had the customary appetite for dinner, but ate moderately—considerable languor and lassitude afterwards—also some vertigo, and very slight nausea on motion or exertion.

At half past one, pulse fifty-six—took another grain of Narcotine—walked another quarter of a mile—sensations as when last described.

At half past two, pulse still fifty-six—somniaency considerable—sensations exactly like incipient intoxication.

At half past three, pulse fifty-six—the mazy feel of the head and the somniaency very considerably increased—some vertigo on motion—change of voice and hoarseness—incipient itching of the surface—difficulty of confining the attention to a book so as to understand it—some thickness of speech—slight staggering on attempting to walk—but, on the whole, sensations quite pleasant. Now took another grain of Narcotine.

At half past four, pulse fifty—somniaency considerably increased—itching much greater than when last mentioned—slight vertigo—pupils of the eyes considerably contracted—affection of the voice, and staggering, about as when last described—pleasurable sensations also about the same. Took another grain of the Narcotine.

Between half past four and half past five, slept in a chair the greater part of the time—voice still more changed, and still greater hoarseness—thickness and slowness of speech somewhat increased—although so sleepy, yet easily aroused—when awake, a little vertigo.

At half past five, pulse fifty-six. Took another grain of the Narcotine.

About six o'clock, took a light supper, and drank two cups of tea.

At half past six, pulse fifty-six—general symptoms heightened. From this time till half past seven, a gradual increase of the mazziness of the head, and of the vertigo, and also of the somniaency. At half past seven, took another grain of Narcotine.

From this time till nine o'clock, P. M., a great increase of the somniaency—almost uninterrupted sleep in a chair—sleep extremely quiet and easy, and aroused out of it with great facility—singular, but not disagreeable feelings in the epigastrium—considerable itching of the surface—great torpor of the bladder, so as to be entirely unable to empty it—in all probability (judging from circumstances) a considerable deficiency in the secretion—pulse fifty-two in a minute—no nausea—when awake, sensations pleasurable even in a high degree.

At nine o'clock, P. M., went to lodgings—during the walk, an alleviation of the symptoms, but, on being at rest for a short time, they were increased again, even beyond what they were previous to the walk—itching again returned—now had exquisitely pleasurable sensations—smoked a cigar, which rather enhanced them—great thickness of speech, and even difficulty of talking intelligibly—could not succeed at all in voiding any urine, and at last went to bed without. Had a quiet night's

sleep, and awoke the next morning with a slight headache, which disappeared entirely after breakfast—otherwise perfectly well, with the exception only of the deficient secretion of urine and the torpor of the bladder, both of which still continue—at last, after nineteen hours' suppression or retention, succeeded in voiding a moderate quantity of urine, perfectly natural in appearance.

During the forenoon of Saturday, March 12th, was rather sleepy—could not see very distinctly to read, as there was a sensation of a blur before the eyes—had difficulty also in confining the attention to a book.

The next experiment was intended to determine the difference between the effects of *Narcotine* dissolved in Hydric or Sulphuric *Æther*, and *Narcotine* simply diffused in water; but, on account of the offensiveness of the *Æther* to the subject of the experiment, the first plan was abandoned, and it was pursued with the object of the last experiment. Dr. P.'s great susceptibility prevented its pursuit beyond three doses of the *Narcotine*.

EXP. IX.—W. T. P., as has been stated, of more than ordinary susceptibility to the impression of medicine, with his pulse at eighty, its ordinary standard, took, at ten o'clock, A. M. (Friday, March 11th, 1831), one grain of *Narcotine*, in a fluidrachm of Hydric or Sulphuric *Æther*, and diluted with half a fluidounce of water. The *Æther* being extremely offensive, and causing frequent eructations, nausea took place in about half an hour.

At half past ten o'clock, A. M., took another grain of *Narcotine*, simply diffused in water.

At half past eleven, pulse sixty-four, evidently softer and smaller. No change in sensations, except the disgustful and disagreeable effect of the *Æther*, which still continues.

At half past twelve, pulse fifty-two, languor and lassitude—mazy feel of the head—so much somnolency as to fall easily asleep in a chair, but still, with sufficient effort, able to keep awake, and even to confine the attention to a book. Sensations quite pleasant. Now took another grain of *Narcotine* diffused in water.

At one o'clock, P. M., a slight degree of exhilaration, and still more pleasurable sensations—dined with a good appetite. About fifteen minutes after dinner, vertigo and nausea commenced, by which was compelled to lie down. While on the bed, there was a perfect cessation of both these symptoms, and the sensations were again pleasurable. Dozed a little, but did not sleep sound—very sensitive and irritable, and easily disturbed by talking, the noise of children, hammering, etc., which caused starting, and sensations somewhat resembling a very slight galvanic shock. There was now considerable itching of the skin.

At two o'clock, P. M., the pulse was fifty-two, and there was much hoarseness.

At half past two got up, but was obliged to return again to bed on account of the vertigo and nausea, which exertion and motion immediately produced. When quiet, and in a horizontal posture, these symptoms immediately disappeared, and sensations were again pleasant.

From three o'clock till four, P. M., there was much somnolency, and even actual sleep, most of the time.

At four o'clock, pulse still fifty-two. Now began to be troubled with vertigo and nausea whilst lying on the bed. Between four and five o'clock, vomited three times, but very easily.

At six o'clock, P. M., pulse still fifty-two, but the effects of the Narcotine appeared to be gradually subsiding.

At half past six, attempted to pass urine—the bladder was extremely torpid, so that it flowed very slowly, and with great difficulty. Remained in bed till seven o'clock, P. M., at which time got up and attempted to drink a cup of tea, but failed. Remained extremely hoarse—quite languid, and with more or less vertigo and nausea, till eight o'clock in the evening, when went to bed and slept till six o'clock, A. M., of Saturday, 12th, awaking only once during this whole time, and that but for a moment or two.

The next two experiments were instituted for the purpose of determining whether the effects of Narcotine are augmented by union or conjunction with Olive Oil, as has been affirmed by some.

EXP. X.—A. L. B. M., with his pulse at seventy-two in a minute, took, at ten o'clock, A. M. (Friday, March 10th, 1831), three grains of Narcotine, rubbed into about two fluidrachms of Olive Oil, to which had been added a small drop of Oil of Cinnamon, just sufficient to give it flavor.

At eleven o'clock, pulse sixty-four—slight sensations of dulness, but nothing else.

At twelve o'clock, M., pulse fifty-six—a mazy feel of the head, but general sensations pleasant.

At one o'clock, P. M., pulse forty-eight—sensations much as at twelve. Between one and two o'clock, walked about a quarter of a mile to dinner—had a good appetite, but ate moderately, and returned.

About two o'clock, immediately after return from dinner, pulse seventy-two—voice somewhat changed—some hoarseness—and some exhilaration.

At four o'clock, pulse fifty-six—sensations as at two.

At five o'clock, pulse forty-eight—somewhat sleepy—general sensations agreeable. From this time, all the symptoms above described gradually subsided. Dr. M. does not think that these three grains of Narcotine, rubbed up with oil, produced half the effect that the six grains, taken in water, produced on Monday; but this may have been owing, in some measure, to diminished susceptibility from having taken the article for two or three days in succession. N. B. Dr. M. was costive when he first began the experiments with the Narcotine. On this account he took five grains of Calomel on Tuesday night, which purged him four or five times on Wednesday morning. From this time till the next Monday morning he did not have a discharge from the intestines. At the last-mentioned period, he had a spontaneous and perfectly natural one.

EXP. XI.—W. T. P., with his pulse at eighty in a minute, took, at a quarter past ten o'clock, A. M. (Thursday, March 10th, 1831), three grains of Narcotine, with two small drops of Oil of Cinnamon, the two well rubbed with a fluidrachm of Olive Oil.

At eleven o'clock, pulse seventy-two—a slight mazy feel in the head.

At twelve o'clock, M., pulse sixty—pleasurable sensations generally.

Between twelve and one o'clock, walked about a quarter of a mile ; after which, pulse sixty-four—sensation of dryness and clamminess in the mouth, though, to the eye, it appears sufficiently moist—considerable exhilaration—had a good appetite, and ate rather more than usual—after dinner, pulse seventy-two.

Between one and two o'clock there was a gradual increase of the exhilaration.

From two till three o'clock, was occupied in writing, to which could apply as well as usual.

At three, began to feel slight vertigo and nausea—walked about half a mile, during which had moderate hiccup for about ten minutes—vertigo and nausea abated during the walk.

At four o'clock, immediately after the walk, pulse seventy-two—still a sensation of dryness and clamminess of the mouth—bladder torpid, so as to render the discharge of urine slow and difficult—on sitting a short time, there was a return of the vertigo and nausea, but in no very considerable degree.

At five o'clock, pulse sixty-four—considerable languor and lassitude—vertigo and nausea on motion or exertion.

From this time till nine o'clock, P. M., had more or less vertigo and nausea the whole time, accompanied with three paroxysms of moderate hiccup, which lasted about ten minutes each time.

From nine till eleven o'clock, P. M., the above detailed symptoms gradually disappeared. Went to bed, had a good night's sleep, and felt perfectly well the next morning.

The next experiment was instituted for the purpose of determining whether the effects of Narcotine are as greatly diminished by solution in dilute Acetic Acid, as has been represented.

EXP. XII.—W. T. took (Friday, March 11th, 1831), at half past nine o'clock, A. M., five grains of Narcotine, dissolved in dilute Acetic Acid ; his pulse, at the time, being seventy-two beats in a minute.

At half past eleven the pulse was at fifty-six, without any change either in force or fulness—there was a slight mazy feel of the head—some change of the voice, and hoarseness.

At half past twelve the pulse remained at fifty-six—there was a still greater change in the voice, and considerably more mazziness of the head ; but the sensations were, nevertheless, quite agreeable.

At half past one o'clock, P. M., the pulse still remained at fifty-six—there was extremely slow, difficult, and protracted evacuation of the bladder—the general symptoms and sensations, in other respects, as at twelve o'clock.

From half past one o'clock till about nine o'clock, P. M., there was a gradual increase of the mazy and confused feel of the head—more or less itching of the surface—the occurrence of considerable somnolency—hoarseness and peculiarity in the sound of the voice—the whole attended with general pleasurable sensations.

At nine o'clock, P. M., there was great difficulty in emptying the bladder.

From nine o'clock till eleven, P. M., there was a gradual diminution of all the symptoms. At the last-mentioned time, went to bed, and slept

quietly till morning, when awoke perfectly well, and entirely in a natural state.

Since the foregoing experiments were made, Narcotine has been employed in medicine by a considerable number of the practitioners of Connecticut ; and, I believe, in every instance—at least in every one that has come to my knowledge—with a full conviction of its value as a medicinal agent. Some observations in regard to its various therapeutic applications, may constitute the subject of a future essay for the Boston Medical and Surgical Journal.

New-Haven, Ct. August 1, 1832.

THE foregoing Experiments, from so accurate and philosophical an observer as Dr. T., cannot fail to interest the medical profession. We regret that so important an error in typography, as that corrected last week, has occurred in their publication. For a notice of this error we are indebted to Dr. T., from whose note on the subject we insert the following extract, since it contains some further remarks pertinent to the subject.—*Ed.*

The subject of this sentence is one to which my attention has been turned particularly, for many years ; and I think I am prepared to show, as certainly as the negative of such a question can be shown, that the number of narcotics, which possess any true stimulant powers, is, in reality, very small ; and that, in the few instances in which these two powers are associated in one article, they are just as distinct powers as narcotic and cathartic powers are, and not parts of one and the same power, as it has been the fashion to suppose, since the time of John Brown. As respects the narcotics treated of—in Murray's *Materia Medica*, for example—not more than five, at the farthest, of the articles which he enumerates, are in any degree stimulant. Alcohol possesses this power very decidedly and prominently. Opium certainly has it in a less degree ; and perhaps Lactucarium, but of this I am not absolutely sure. Camphor, too, possesses it, in all probability, in a less degree than Opium. Perhaps Aconite is a stimulant, and perhaps not. My observations upon this article are not sufficiently extensive to enable me to speak with certainty. Hyoscyamus, Belladonna, Conium, Digitalis, Tabacum, Stramonium, and Lauro-Cerasus, are certainly entirely destitute of any true stimulant powers, in any degree whatever. With the *Rhododendron Chrysanthum*, I am not experimentally or practically acquainted ; but, if the published accounts of its operation may be trusted, this also is destitute of stimulant powers. The *Nux-Vomica* does not appear to be stimulant at all, though it is probably more or less tonic, in addition to its narcotic powers. The *Arnica* does not appear, to me, to be at all narcotic, and I am certain that the *Toxicodendron* is not. The *Lupulus* is also entirely destitute of all narcotic power. This article has been a subject of repeated experiment with me, and I have likewise had much experience of its use. It is a mere nervine bitter tonic. Sulphuric *Æther* is neither narcotic nor stimulant. It will be observed, that I use the term stimulant in a definite and precise sense. In order to be entitled to the denomination of stimulant, I consider that

an article must be capable of producing ‘*a quickly diffused and transient increase of the vital energies generally, and a similar increase of the strength of arterial action.*’ Murray, and indeed most medical writers, appear to use this term in at least half a dozen different senses, some of them so vague and general as not only to include the whole *Materia Medica*, but even many articles not known to possess remedial virtues. This, it will be obvious, is even more comprehensive than the term medicine.

W. T.

MALIGNANT CHOLERA.

To the Editor of the Boston Medical and Surgical Journal.

Middletown, Conn., August 20, 1832.

SIR,—It has been frequently asserted, that the general method of treating sinking typhus, when applied to cholera, has disappointed expectation. This assertion, however, it is believed, has usually been made by those who have had but very limited, if any, experience in the lowest typhoid diseases that have prevailed in various parts of our country, during the present century. It is never to be supposed that patients, who are actually moribund when first seen by the physician, are to be resuscitated; but it is perfectly evident, that by an energetic, persevering course, many of the cases, usually supposed to be desperate, are curable. A considerable number of cases of cholera, in subjects directly from New York, or among persons who have associated with them, have occurred in the vicinity of New London. I lately sent you the statement of one, and am now able to add another, treated successfully upon the principles of sinking typhus, in which opium was employed to its fullest extent. It had the most salutary influence; and with its adjuvants, it appears to have been the only means that was possible to restore the patient.

As my correspondent did not write for the public eye, I have taken the liberty to change the phraseology in a few instances, but without varying his meaning, as I conceive, in the slightest degree. Dates, symptoms, numbers, medicines, quantity, frequency, &c. have been literally preserved. Yours, very respectfully, THOMAS MINER.

Extract of a Letter from New London, dated August 15, 1832.

On the evening of the 9th inst., at eight o'clock, I was called in consultation by Dr. M. to see a Mrs. S., aged 21, who had been at her aunt's, Mrs. H., during part of the illness of her family, which had suffered severely from the cholera since they left New York. On the 28th of July, she left them with a diarrhœa and debility. This state continued till the morning of the 9th inst., when, at ten o'clock, she took, without advice, about five grains of calomel. At four, P. M., she began to puke, and have violent spasms or cramps in the legs. Dr. M. arrived at five, and found her cool and sinking. On my arrival she was warm, but dry; pulse one hundred and very feeble; tongue furred, and she could not speak. On asking where the distress was, she placed her hand over the stomach, and on the lower limbs. The spasms were more violent than any I ever saw, even in tetanus, and they came on as regularly as labor pains. The toes would be drawn towards the heels, the heels

against the nates, and the knees up under the chin, when she would scream out, and a light watery fluid would be ejected with force from the rectum among the bed-clothes. I was apprehensive she would die from the violence of the cramps. Dr. M. had given ten grains of opium, and put plenty of blankets over, and hot bricks around her. We then gave a pill of five grains of opium and three of calomel, and followed it instantly with a tablespoonful and a half of laudanum, in half a glass of hot brandy toddy, which was at hand. After waiting half an hour, another spasm was followed by three grains of opium. She then became more easy, and at nine o'clock a warm moisture began to show itself, which we considered as very favorable—and I left her. The next morning, Dr. M. told me, he gave half a tablespoonful of laudanum, an hour after I left, and that at eleven o'clock the cramps and discharge from the bowels were silenced. She took, however, during the night, three pills of one grain of opium and half a grain of calomel each, and drank wine and water, which she preferred to brandy. Her skin was warm and moist, with a pulse of 120, of good force. She puked thrice during the night, but not hard or much. Her speech returned, and she said she understood everything that had been done. She now begged for cold water. She also complained of general soreness and debility, and slept but one hour during the night. During the 10th, she slept four hours. On the 11th, she passed a little water, for the first time since her illness [sufficient to induce her to call for medical assistance]. She took no medicine after the 12th, when we ordered her a light meat broth. She is now quite well.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, SEPTEMBER 5, 1832.

STATISTICAL ACCOUNT OF CHOLERA IN AMERICA.

St. Johnsbury, Vt., August 22, 1832.

MESSRS. CLAPP & HULL,—Have you not the means of giving a statistical account of the progress of cholera in America, from its commencement in Quebec down to the present time? I wish, if possible, to trace its rise, progress, and decline in our country. This, to be done, must be soon commenced, in order to have correct data. The exact number of deaths, perhaps, may not be attainable in all places; yet I think they may be nearly so. I may be asking too much of you, or that which is not possible for you to perform: still, if you have not the means on hand from which the facts can be obtained, I must believe that through the medium of your subscribers and correspondents all necessary information would be cheerfully given. This scourge of the old world must not pass through our land, without its pathology being better understood than in Europe or Asia. It has not proved more fatal, as yet, in any part of our country, than did typhus syncopalis, spotted fever, even in this region, when it commenced. Yet, before that disease had prevailed here thirty

days, such confidence had we in our plan of treatment, that if we could see our patients in season (except very small children), we were as sure of their recovery as in ordinary typhus.

Our general plan of treatment was the same as that spoken of in the Journal; and I do know that cases where the state of collapse was as absolute as any case of cholera can be while life remains, were successfully treated—not in a solitary instance, but in multitudes of cases. The coldness of death, pulselessness, deafness, blindness, total inability to swallow for hours, want of susceptibility in the skin to boiling water—all were overcome by perseverance, and life saved.

Yours, most respectfully,

CALVIN JEWETT.

The foregoing extract from a business letter, not designed for publication, is offered by way of introducing a request to our subscribers, wherever the cholera is, has been, or may be, on this continent, that they will send us an accurate statistical account of the disease as it may have fallen under their observation or knowledge—such an account as will enable us to form the table spoken of by Dr. Jewett. Such a plan we have had in contemplation; and each one who furnishes us the means of forming a single item in the general view, will be rewarded by possessing the whole in a compact and satisfactory form. In Quebec, Montreal, Albany, New York, Philadelphia, and many other places, we have, among our readers, able and eminent practitioners, who could execute the design perfectly, and, they will allow us to add, the better the sooner it is begun.

Respecting recoveries from spotted fever, when the patients were in a state of collapse, we fear there is some little misunderstanding respecting the exact state expressed by the term *collapse*. Most physicians have witnessed what has been always termed collapse, preceding death by many diseases; but when these same physicians first witness a *cholera* patient in this state, they generally, if not universally, agree that they had never before known the full signification of the term. When gliding into this state, the cholera patient may, perhaps, be sometimes brought back by the resources of the healing art; but when fully formed, a mightier arm than that of man, we apprehend, would be required to arrest permanently the fatal progress of the case.

CHOLERA IN BOSTON.

THE history of cholera in this city seems to be destined to add to the number of wonders in regard to this strange malady, and to increase the difficulty of coming to any conclusion as to the laws of its appearance and progress. It is, in very truth, a most strange phenomenon—an invisible comet—a potent, relentless and capricious enemy, striking blows in the dark, and mocking at our efforts to evade its force or deprecate its fury. The anticipation of it seemed to haunt the public mind like a nightmare, producing a sense of something terrible near us, which the external face of nature flatly contradicted; and even now that we have seen the monster, the impression has almost the vague, unreal character of a dream, so much was its aspect at variance with all else which presented itself to our sober senses. Let us consider the facts. The average mortality of the city of Boston is estimated at 28 weekly deaths. During the week ending August 18th, the number was 21; during that which followed, 28; and the last week, which ended September 1st, 17; making a total

of 66, which, compared with 84, the average for the three weeks, shows how much more healthy than usual our city has been during this period. Yet, within this same period, four individuals have died with cholera, marked by all the symptoms which characterize the eastern disease, and which have accompanied it to our sister cities on this side the Atlantic; having the same rapid course and termination, exhibiting the same peculiar evacuations, the spasms, the collapse and asphyxia, all strongly and distinctly marked, so as not to be mistaken by the most careless observer. All these cases, it is to be observed, terminated fatally. We have heard of no case of spasmodic cholera which had a different event. In the mean time, it is certain, both from the general report we have already referred to, and from the classification of the deaths, that the usual bowel complaints of the season are comparatively rare, or, if as numerous as usual, far less grave and fatal. Of the 66 deaths, already mentioned as constituting the mortality for three weeks, three only are of dysentery, and one of bilious cholera. We shall again recur to the subject of this last case. In the mean time, it may not be uninteresting to remark, that the number of deaths for the three weeks ending Sept. 1, 1831, was 88, of which *five* were of cholera, and twelve of dysentery; making the whole mortality then greater, by one third, than that presented by the corresponding period this year, and the deaths from common cholera numerically greater than those from the two forms of the disease now existing. In the mean time our summer has passed away, and with it has ceased the only known atmospheric cause of our bilious cholera. More than two weeks have elapsed without the occurrence of a hot day. Our evenings begin to inspire something of an autumnal chill, and we begin already to talk of warm firesides and thick garments.

It is not in such weather as this that we are acquainted with severe cholera in ordinary seasons; and it is difficult to realize that we are menaced with it now. One thing is certain, that if under existing circumstances severe and fatal cholera should become epidemic among us, there will be little difficulty in recognizing it as a new disease; and instead of laying particular cases to the account of green apples, cucumbers, and watermelons, we must then be content to confess our ignorance of the cause of this mysterious malady, and wait for farther experience to enlighten our understandings.

The case of cholera which has been alluded to, deserves mention in this connection, since some of its symptoms allied it very nearly to those which have been reported as spasmodic cholera. The leading particulars of this case will appear from the following note, which we have received from one of the attending physicians.

MR. EDITOR,—On Tuesday, at noon, I was requested by my friend, Dr. M. G., to visit a patient in Wharf Street, to whom he had been called the evening previous, and whom he had found affected with severe cholera. The matters then vomited and purged were bilious. He had ordered sinapisms to feet, and pills of calomel and opium. On repeating his visit in the morning, he found that the pills had never been given. Vomited matter still tinged with bile. A blister was applied to the abdomen. On visiting her together, we found her in a sitting posture on her bed, which lay on the floor, and, like her clothes and person, was excessively filthy. She was throwing up, with very little apparent effort, a fluid resembling rice water, or serum holding suspended whitish mucous flocculi. The countenance was anxious; the eyes surrounded with a livid areola; the tongue of natural temperature, covered with a black coat; vomiting frequent; dejections frequent, not very copious, described as being like the matters thrown up. Had great thirst, which she had been satisfying with *whisky*. The sound of the voice was natural; the respiration not hurried; pulse rapid and feeble. Hearing appeared to be impaired; the mind was clear, but anxious. The muscular strength was

considerable; she thought herself able to walk across the room. No distinct spasms were present; the toes were more than half flexed; fingers about half, but both under her control. The skin of the extremities was cold to the touch, rather moist; color nearly natural, perhaps sublivid; that of hands somewhat sodden and shriveled in appearance. Bladder had acted as well as usual.

At three, P. M., I visited her again. The vomiting and purging had ceased. The skin remained cold; the countenance was sunken; the voice hoarse, breaking into a harsh, squeaking tone. No pain or spasms.

At eight, P. M., the surface of extremities cold throughout. Face of natural temperature; tongue likewise; mind was much discouraged; pulse nearly insensible at wrists.

She sunk gradually, and died at midnight. The details of the treatment I do not give, as they were under the direction of Dr. G. Permission could not be obtained to examine the body.

This case was certainly not one of *spasmodic* cholera; but the character of the evacuations, the aspect of the countenance, and the change in the voice, together with the fatal issue, may impart to it some interest at the present time, and I therefore take the liberty to submit it to your attention.

Respectfully, E. G. D.

CASES OF CHOLERA IN BOSTON, WITH APPEARANCES ON DISSECTION.

THE following was the first case of malignant cholera which occurred in this city. Some account of the second has been given in our last number; the third is given below; and the fourth will be published in our next.

Miss E. L., aged 30, was seized late in the evening of August 14th with colic, followed by purging and vomiting; was seen by a physician early the following morning, and found to have decisive symptoms of malignant cholera. She died at eleven, A. M. The examination was made by Drs. Warren, Bigelow, Ware, and Osgood. The post-mortem appearances were as follows:—

The body being viewed externally, presented a dark color of the skin, and the appearance of being shriveled. A blue circle surrounded the eyes. The flexor muscles of the arms were strongly contracted. No movements were noticed in these muscles.

The cavities of the thorax and abdomen being opened, the former presented the following appearances. The pleura, dark colored; lungs filled with dark colored blood. Heart very dark colored; its cavities containing a small quantity of thick blood, of about the same color on both sides.

Cavity of the Abdomen—Peritoneum darker than usual, and, together with all the surfaces exposed to view, showing a tendency to become dry as soon as exposed to the air. Muscles covered by the peritoneum of a very dark color, like that of a person who had died by strangling. Vessels of omentum injected with blood, and exhibiting many small veins quite distended with black blood. Peritoneal vessels of the stomach and intestines generally injected with blood more than usual. Liver of a natural aspect. Gall bladder moderately distended with dark green bile—none of which was seen in the cavity of the intestines. Spleen natural. Kidneys firmer than usual. Bladder contracted firmly, and empty. Uterus healthy. Semi-lunar ganglion unchanged in its appearance. On opening into the cavity of the stomach, a quantity of fluid was discovered, like water, half opaque, with flocculent substances floating in it; the quantity over half a pint. Near the pyloric orifice was discovered one whortleberry, surrounded by some dark mucus. This was the only remains of food or fecal matter in the whole tract of stomach and intestines. The mucous coat of the stomach was generally natural, and only slightly reddened near the pylorus. The small intestines contained a very large quantity of fluid, like thin water-gruel. The mucous coat of the duodenum had some degree of redness, and that of the small intestines, generally, was reddened by injection of the vessels of the mucous coat. The contents of the large intestines were thin, watery, and in great quantity. The fluid differed from that in the small intestines, in having a red color, similar to that which was perceived in the evacuations of persons attacked with cholera morbus in the State Prison. It had precisely the appearance of the washings of a piece of raw beef.

The aorta and vena cava contained each about the same amount of blood—that in the artery having the color of venous blood; and that in the vein the color of pitch.

G. S., aged 10. His parents reside in a pleasant, airy, comfortable house, and are in good circumstances. General health good. Some headache the last week previous to attack; otherwise as usual. August 24th, seized at two, A. M., and died at half past eleven. Vomited and purged copiously at first; found in collapse at half past six; no spasms after that time. Some temporary reaction from treatment.

Fifteen minutes after death, body generally flaccid; abdomen tense, not full; friction of external surface was found to produce a quivering action of the muscles, while forcible extension would cause permanent flexion. The tremulous motion was particularly noticed in fibrils of pectoral muscle, the spastic action in arms and legs. Palms of hands decidedly blue, skin elsewhere sublivid; hands cold, head cool, trunk warm, eyes fully open. Both corneæ exhibited ulceration; that of right was found near the centre, to the extent of a line and a half in diameter, ragged. These ulcerations were stated to have commenced just before death. One, P. M., hands more livid than an hour since. Two, P. M., contraction may still be produced in the muscles by strong pressure or a blow, rendered evident in the deltoid and other thick muscles by a roundish tumor at the point affected.

Examination at one, P. M. *Abdomen.* External appearance of intestines purplish, everywhere injected with dark blood. Large intestine contracted for two or three inches where it enters the true pelvis. Stomach contained 3 ij. of thin reddish fluid, with a faint smell of brandy. The small intestines contained from 3 viij. to 3 x., the large intestines about 3 iij.; that in jejunum opaque, reddish white, nearly purulent in appearance. Lower down, fluid more clear, watery, with flocculent sediment. In the cæcum, *rice water* in considerable quantity, the flocculi resembling rice long boiled, or fragments of inspissated mucus. Some of the same fluid was found in rest of large intestine. Mucous membrane of stomach appeared like coagulated albumen, rather firmer than natural, retracting slightly when divided, generally of ash color, with very little redness, and no appearance of inflammation. That of the upper part of small intestines was very much corrugated, and blanched as if macerated, and more or less so throughout. The mucous membrane of large intestines was studded thickly with glands in cæcum and ascending colon, becoming less numerous beyond. Gall bladder of usual size, two thirds filled with dark bile, which by pressure was easily forced through the ducts into the duodenum. Kidneys not congested, contained no creamy fluid. Bladder much contracted, capable of containing a walnut; contained about ʒiss. urine, no creamy fluid. *Thorax.* Lungs not congested; heart natural. Both sides contained some dark liquid blood, and some soft coagula. Bloodvessels were not distended; more blood in descending cava than in aorta; thoracic and abdominal aorta contained some dark thick blood, and some soft coagula; the lower cava was distended with dark fluid blood, and when abdomen was opened, a large quantity escaped from the veins at the groins.

✂ We regret the necessity of deferring Dr. Paine's Letter till our next.

Whole number of deaths in Boston for the week ending Sept. 1, 17. Males, 8—Females, 9—Still-born, 1.

Of dropsy in the chest, 1—typhus fever, 3—convulsions, 1—dyspepsia, 1—paralytic, 1—marasmus, 1—infantile, 1—cholera morbus, 1—syphilis, 1—dysentery, 2—malignant cholera, 1—lung fever, 1—consumption, 2.

ADVERTISEMENTS.

BERKSHIRE MEDICAL INSTITUTION.

THE Annual Course of Lectures will commence on the first Thursday in September, and continue fourteen weeks.

Anatomy, Surgery, and Physiology, W. PARKER, M.D.

Theory and Practice of Medicine, and Obstetrics, H. H. CHILDS, M.D.

Materia Medica, and Medical Jurisprudence, E. BARTLETT, M.D.

Botany, Chemistry, and Natural Philosophy, C. DEWEY, M.D.

Demonstrator of Anatomy, J. M. HUBBARD, A.M.

Fee for the whole Course of Lectures, \$45; those who have attended two full Courses at an incorporated Medical School, pay only \$5; Graduation, \$12. Boarding, from \$1.50 to \$2 a week. The tickets are to be paid for at Matriculation, or competent security given.

Pittsfield, Mass. August 13th, 1832.

By order of the Trustees, S. M. McKAY, Secretary.

NOTE.—The following authors are recommended to be used by the Students during the Lecture Term. *On Anatomy*, C. Bell, Horner, and Cloquet.—*Surgery*, S. Cooper, and W. Gibson.—*Practice and Theory*, Gregory, Good, Eberle, and Dewees.—*Obstetrics*, J. Burns, Dewees, and London Practice.—*Materia Medica and Medical Jurisprudence*, Beck, Chapman, and Eberle.—*Chemistry*, Bronde, Ferriar, and Webster.

The Berkshire Medical Institution was incorporated for a College of Medicine in 1823. By an act of the Legislature, the Medical Graduates of Harvard University are authorized to practise Physic and Surgery; and, by an additional act, 'any person who shall be GRADUATED A DOCTOR OF MEDICINE IN THE BERKSHIRE MEDICAL INSTITUTION by the authority of Williams College, shall be entitled to all the rights, privileges and immunities granted to the Medical Graduates of Harvard University.'

SURGICAL INSTRUMENTS

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CONTAGIOUSNESS OF TYPHOUS FEVER.

The Contagiousness of Typhous Fever. By JONATHAN SIBLEY, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

IN September, 1799, I took lodgings in the town of Union, Lincoln County, Me., and soon went into the practice of medicine, surgery, and midwifery. My first case of fever was on Appleton Ridge, a man about twenty-six years old. The account which he gave of himself was, that he had lately been to a military muster, had drank pretty freely, and fatigued himself at night by dancing. I made him a few visits, prescribed emetics, cathartics, &c., and applied a blistering plaster. But the patient becoming delirious, and his friends having but a poor opinion of physicians and medicine, he was neglected, and finally died. Soon after the death of this person, two children in the same family became sick with fever—one a male, about sixteen years old, and the other a female about fourteen. These two children occupied the only bed in an old log house, entirely destitute of glass. I attended them two or three weeks. They both recovered. These, then, were, undoubtedly, cases of typhous fever: the first brought on by a debauch, and the two latter by infection from the former.

In May, the next year (1800), a robust, middle-aged man fatigued himself very much by night on board a vessel, which was coming into George's river. He left the vessel, and went immediately to his home in Hope, near the banks of the river. In a few days he was sick with typhus; it was severe, and lasted long. In the early stages of this case, there was furious delirium and want of sleep; and then followed great emaciation of body and fatuity of mind. The man finally recovered. This man had a large family, who were all sick in the course of the summer and fall, one after another. The children were but slightly affected. In the course of this season, there were many other cases of typhous fever in the neighborhood. Many of these cases were, undoubtedly, caused by contagion from those who had been previously sick; but some were sick with this fever who had never been exposed by visiting or seeing others who were sick. This complaint continued in the west part of Hope, and in Appleton, from May to the end of the year. About fifty were sick—no deaths.

In October of this year, I had the fever myself in Union. I have no doubt I took the disease of my patients in Hope. I was confined about a week, but soon recruited, with the loss of most of my hair. A young man, where I boarded, had the fever slightly, soon after I left my room. The next January, a young woman was sick in Union with typhous fever, who had been living at Hope a few days in December, where the fever had prevailed the fall before. It was reported that she had lodged in beds which had not been well cleansed. There can be no doubt, in my mind, but this person obtained the fever in Hope while she was there, as she could not have been exposed anywhere else ; nor is it at all likely she could have had the disease from the peculiar nature of the atmosphere, at that cold season of the year.

In July, 1801, a young man from Union made a trip to the State of Massachusetts. When at Boston, about to return home, he found himself unwell, and sent for a physician, who gave him a dose of jalap and calomel, and then told him he would have a fever. He soon took passage from Boston to Waldoborough by water. From Waldoborough this man started for Union by land ; but in the night, on his way, he became lost in the woods, where he suffered much from anxiety, fatigue, sickness, and night air. He reached Union the next day, and went into a large family, where he had a most severe fit of sickness by typhous fever. Here I took the disease the *second* time—was confined to my chamber two weeks ; but I was once more restored to health, with the loss of my hair again. Most of the members of this large family took the fever from this man, as I did : some were very sick, but none died. So much for the contagious nature of typhous fever.

I have now been in the town of Union more than thirty years, in regular practice, and have seen many, very many, cases of typhous fever—I presume hundreds. The average number of deaths by typhous fever, among those that I have attended in this country, I think will not exceed one in forty ; perhaps not more than one in fifty, of the whole number.

Aged people have rarely been affected by this disease. Children more frequently ; but the middle aged, and more especially the youth of large families, seldom escape whenever the disorder makes its appearance among them. In such families, it usually lasts three or four months before it finishes its ravages.

I do not perceive that local situation has any influence upon this disease ; or that the inhabitants in one situation or place are any more liable to this disease, or fare any harder when they are sick with it, than the inhabitants of any other place. Nor am I able to say, or even to conjecture, why the disease should *naturally* prevail any more in one year than in another ; but temperature has certainly an influence upon it. When it breaks out anew, it is always in the warm season of the year, and generally in the latter part of summer ; and then, from some cause or other, it seems much inclined to keep lurking about the country till winter, when it always ceases to exist, except in such cases as are communicated by the contagious or infectious nature of the disease, from those who are sick to those who are well.

Dr. Smith, of—all along the Connecticut river, says he has ‘never known or heard of its recurrence in the same person.’ I have *myself*

had the typhous fever *twice*. Another person, who has been a neighbor to me more than thirty years, has also had the typhous fever twice. These are the only cases of its 'recurrence in the same person' which have come to my knowledge, and they are cases in which I could not be deceived. I first had this fever in 1800, and then again in 1801. The other person was sick with the same disease, first in 1802, and then again in 1810. We were both young when we had the disease the first and second time, and had both been much exposed to the infection, each time, by attending those who were sick. Dr. Bristow, of Warren, informed me that he had known one person to have the typhous fever twice in one year. The 'recurrence' of the typhous fever in the same person is, I think, a *rare* occurrence.

Young men who go from the New England States to the West Indies, or the Southern States, in the summer season, are, as I am told, very liable to have the fever of those countries; and when they recover they are thought to be somewhat acclimatized, and not so liable to have the same fever again. They become seasoned to the climate: this has been called a seasoning fever. Young men who have come from the westward into this country, in times past, I have considered *more* liable to take the typhous fever, than the natives who were born here; and after they have had the fever once, they are certainly not so liable to have it again;—are they not, by this means, seasoned to this climate?

There have been but few years of the many that I have spent in this country, in which typhus has not appeared among us. In some seasons there were but few cases—in other seasons many. One year, when there were many cases of typhus in different parts of the country—a kind of sporadic, perhaps—I kept watch of them as well as I could, and made my calculation that about one half or two thirds of the people who were sick with the disease, had been exposed to others who had been sick with the same disease, and were thought to have taken the infection from them; but of the others, no particular cause could be assigned whatever, why they should have the fever at all, unless we attribute it to a certain gas, or vapor, which arises from the surface of the earth in our summers! In some seasons there have been several persons complaining, at different times, of headache, sickness, debility, pain in their limbs, foul mouth, &c., who applied to me for assistance; but after taking a few grains of tart. antim. and calomel, in divided doses, or perhaps a scruple of jalap, were well in a few days, thinking these medicines had 'broken up the fever.' Many cases of this kind have occurred to me in practice; but whether they would, if left to themselves, have finally been real cases of idiopathic typhous fever, I cannot tell.

Dr. Smith calls the typhous fever a 'specific disease, a *sui generis*.' Dr. Armstrong, of London, says, 'In 1819 I attended a patient with intermittent fever, which in its progress put on a remittent character, and that again assumed the continued character, but with all the most malignant signs of what is usually denominated typhous fever. The fact of intermittent, remittent, and continued typhus passing and repassing into each other, proves their common origin;' and he considers what is called malaria, or marsh effluvia, the sole cause of this disease, which (when it has assumed the form of a continued typhus) may be propagated from one per-

son to another by contagion. If malaria, or marsh effluvia, be the primary source of typhous fever in London, it is probably the primary source of typhus all over the world. I do not know that I have ever seen a single case of well-marked intermittent or remittent fever which originated in this country. Whatever I may have seen of the intermittent kind, has been imported from a warmer climate; and as to the remittent form of fever, I can say nothing from experience, except what takes place in the decline of typhus, which, after a *hard run* of the disease, seems to assume a remittent form, having an exacerbation or paroxysm every day, and a remission at night. As the disease declines, these paroxysms of heat become shorter and shorter, and the remissions longer, of course, till the disease finally wears itself out, occasionally leaving its victim with a rheumatic affection in the hip, or with a swollen and clumsy leg.

That the typhous fever (and, if Dr. Armstrong be correct, the intermittent and remittent fever likewise) may be caused or brought into existence by malaria, or marsh effluvia, I do not pretend to deny, or even to doubt: but in this country we have no marshes or bogs which have been accused of making us sick; nor do the people who live on the low land, or beside meadows and fresh water, appear to be more liable to this or any other disease than the people who live upon the high land, or in the back woods. I have yet to learn (or yet to remain ignorant) what this general cause of fever may be, and how it produces its effects; but 'such knowledge is too wonderful for me; it is high; I cannot attain unto it.' I will endeavor to speak only of effects. May not this malaria, miasmata, or gaseous vapor from the earth, this 'secret peculiarity in the constitution of the atmosphere,' this unknown 'occult quality of the air,' sometimes produce fever in some of those persons who have been exposed to the contagion of those who were sick, and were thought to have taken this disease by infection from them; and so, in fact and truth, be a more *general* cause of fever than has been suspected?

To me there is, evidently, *something* peculiar in the nature of typhous fever. I have seen a few cases of *specific* typhus in adults, and many in children, so slight that they could scarcely be perceived—most certainly could not be distinguished at the time; yet in all cases of idiopathic typhus (however slight) the hair falls off.

However frequently Dr. Cullen may have seen cases in his genera of synocha and synochus in Scotland, I do not know; but in Maine, *my* observations and experience seem to correspond with what Dr. Smith has written, when he says, 'I have never witnessed a single case of continued fever, except *typhus*, which was not either the effect of contagion, as the small-pox, measles, &c., or evidently connected with local inflammation, and dependent upon it.'

I once knew a robust, middle-aged man, who had a slight attack of pleurisy in November. He was bled, and but little else done for him. In a few days he was at his work. In December, one month after, I found him at night raving with typhus. I gave him a large dose of jalap and calomel, and applied a blistering plaster to the back of his neck. The next morning, when I called to see him, he was 'clothed and in his right mind,' but his typhus lasted two or three weeks. These two cases of fever in the same person, with an intervention of only one month,

were entirely distinct and independent of each other. I have never known a typhous fever begin with a pleuritic pain in the side ; but in the progress of the disease, more especially in the decline of it, I have known this pain to supervene, and in one case it was very severe.

A man who had been sick with jaundice a year or two, and was yellow as a lemon, was attacked with pleurisy. I bled him ; the blood looked like yellow dye. This man was treated on the common principles for pleurisy, and the disease lasted only the usual time. In a few weeks after the pleurisy left him, he died with jaundice.

I place no confidence in what I have read about critical days in fever, nor have I learned anything respecting them by experience. I cannot often tell when a fever begins. People frequently ask me when the fever will turn. This is a very embarrassing question ; and the only proper answer which I can think of, would be to say—‘ when it forms a crisis.’ I have not yet become so learned in my profession as to know exactly when this ‘ decision of the conflict between nature and distemper ’ takes place. When a person has been sick ten or fifteen days with typhous fever, the disease frequently becomes stationary, and we cannot see any perceptible change for several days ; and then, in favorable cases, the fever begins to remit and to recede, as it purges the constitution and has no more fuel left to keep it burning.

The typhous fever of modern days is, most certainly, the same disease which in ancient times bore the name of slow, nervous fever—in every respect. Huxham was a famous writer upon it, long before it assumed the name of typhus ; but typhus now seems to have become a great word—or rather, great use seems to be made of it, both by physicians and people. It is an easy word—all can use it ; but few know or care whether it was derived from the Greeks or Cherokees : nor does the proper application and use of the word seem to be any object—so long as it answers their purpose, they are contented to use it *any* way. A medical *sprout* found an old man with a pain in his side ; told him he had a typhous fever, and applied a blistering plaster, which relieved the pain. *Ergo*, the name of the disease must certainly be correct, because the remedy gave relief.

In a case of well-founded typhous fever, can anything be done to cut short the race of the disease ? In many cases of indisposition accompanied with feverish symptoms, much good may be done, and the patients oftentimes entirely cured and restored to health much quicker than they would be if left without assistance. But when the seeds of this disease are sown in the human body, from a person sick with the same disease, and the disease is fully formed ; or, in common phrase, ‘ when the fever is settled,’ I cannot think that anything can be done to eradicate this disease from the constitution, any more than can be done to exterminate the measles or hooping cough, or any other contagious disease.

P. S. In a few instances of this disease, where the fever was severe and lasted long, I have known large quantities of grumous blood discharged by stool, in consistence and appearance much like the meconium of infants. These extraordinary appearances gave great alarm, but no harm resulted from them—the patients all recovered. Those who are in a convalescent state from this disease, secrete urine and sweat in large quantities.

FREE OIL EXISTING IN THE BLOOD OF CHOLERA PATIENTS.

[Communicated by Dr. Warren for the Boston Medical and Surgical Journal.]

New York, August 30, 1832.

DEAR SIR,—I attended this morning—at the Crosby Street Hospital, through the politeness of Dr. Rhinelander, who has the charge of that institution, and where I have before witnessed very interesting dissections—the post-mortem examination of two subjects who died of cholera, and whose cases I communicate to you, for the purpose of announcing, if I am not mistaken, the discovery at that hospital of an oil existing in a free state in the blood. I have not seen this circumstance noticed by any writer ; or if so, I have forgotten the fact. Dr. Gale, the chemist employed by Dr. Rhinelander, is the gentleman who first observed this phenomenon, and who has witnessed it in many instances. He has obligingly furnished me with his notes on this subject, which I shall append to the cases. Perhaps, too, you may derive some interest from the novelty of one of the patients having been transfused.

A. B., an athletic negro, aged about forty years, employed as a sailor, and of intemperate habits, was admitted, on the morning of the 29th, with the usual phenomena of malignant cholera. Vomiting and purging had occurred to a large extent. He died at three o'clock in the afternoon, and the dissection was commenced about eighteen hours after death. There was nothing remarkable in the external appearance of the body. The muscular substance presented the usual florid appearance. No sensible decomposition had taken place. The veins of the epiploon and mesentery more than naturally full. Small intestines of a pinkish color ; large intestines nearly natural—not blanched ; caput coli natural. These organs had a glutinous fluid on their exterior, which is often observed. The mucous tissue of the small intestines rather florid, but not minutely injected—the blood evidently existing in the veins ; its texture firm, but not very grumous ; the quantity of mucus natural, but creamy. The contents of the whole tract consisted of a large quantity of a fluid resembling oatmeal gruel. There was nothing unusual appertaining to the large intestines. The liver was very natural, and the gall bladder about half full of a light-colored bile, which escaped, on pressure, into the duodenum. There were also found three gall stones, of the size of a pea, in the duct. Bladder contracted, and containing about two drachms of a turbid yellowish fluid ; quite vascular at its posterior part. Kidneys very large, but natural ; a semi-purulent fluid oozed from the papillæ. Spleen flabby, and full of blood. Pancreas natural. The anterior portion of the lungs contained more than the natural proportion of blood, and the posterior still more—making a proper deduction for the position of the subject. The lungs otherwise healthy. The heart in all its cavities, and the large vessels, contained a considerable quantity of black blood. The substance of the heart was soft and flabby, otherwise natural. Numerous masses of firm coagulable lymph were found in this organ, and in the aorta at its origin—a circumstance which frequently occurs, even when dissections are made soon after death.

No fluid in any of the cavities.

The brain was perfectly natural—no fulness of its veins—perhaps rather less serum than should have existed. The arteries, as usual in choleric subjects, contained black blood. The par vagum and other nerves very natural.

The oil, to which I have adverted, was remarkably abundant in this subject. It covered the blood from whatever part abstracted, and floated in small and large globules on the surface of about one ounce, after standing an hour in a vessel, into which it had been received from the heart. There were two globules of the size of a common pea; the others were very numerous, but no larger than a grain of mustard. It was found in the large and small vessels—it was very distinct in the brain—it was as obvious in the kidneys, and in every part particularly examined. It resembles olive oil in appearance and consistence.

CASE II.—The subject of this case was a white man, aged thirty-five years, a laborer, and intemperate. He was admitted in the forenoon of the 29th inst., and died at eight o'clock in the evening. His symptoms were very malignant, and presented a good specimen of the Asiatic cholera. He was transfused, five hours before death, with forty ounces of the common saline preparation. Dissection began fifteen hours after death. No particular evidence of decomposition. Body still quite livid. Muscles more than usually florid. Large veins of the abdominal viscera rather fuller than natural. The omentum more than usually vascular and florid. The stomach externally and internally natural—no fulness of its vessels, and no softening of the mucous tissue. Small intestines of a light blush of redness, but scarcely pathologic; inner membrane rather more than naturally vascular, and the blood existing in the extreme vessels; its texture firm, and distributed on its surface were numerous enlarged follicles. The mucus here, as in the continuous organs, natural in quantity, and of a creamy consistence and appearance. Large intestines perfectly natural. These organs were much inflated, and contained a large quantity of a light-colored fluid, intermixed with a pultaceous substance. Their surface was covered with a transparent glutinous fluid. In the stomach were found several large pieces of pickled cucumber, which had been swallowed without mastication. In the large intestines, as also in the other subject, the mucous tissue was easily detached, by pulling, from the serous. Not so in the small intestines. I have often remarked this circumstance in other subjects, and have found it existing in the small intestines. The liver was natural, and the gall bladder distended with black bile, which was easily expressed into the duodenum. The kidneys natural, and the same muco-purulent fluid as in the other case exuded from the papillæ in a small quantity. Spleen and pancreas natural. The bladder was not contracted, and it contained half a pint of a light-straw-colored urine. This is the first instance in which I have found more than half an ounce of that fluid. The lungs, posteriorly, were gorged with black blood; their structure healthy. The cavities of the heart and large vessels contained rather a large quantity of *black* blood, in which were discovered large concrete masses of coagulable lymph—some of them in the aorta, and some in the pulmonary artery. The substance of the heart was soft and flabby, and a few purple patches were

observed on its surface—an appearance which is not common with us. The brain was in all respects natural ; its consistence usual ; the blood-vessels not half filled ; but there was more than half an ounce of serum in the ventricles.

In this subject the free oil was seen floating on the blood which was taken from the heart, from the kidneys, the brain, &c. ; but in less remarkable quantities than in the former case. I could perceive no difference in the color of the blood of this injected subject, from what occurs in all choleric, excepting in the minute vessels of the membraceous organs, and in the brain, where it was more florid. I think, also, the fluidity was greater, although the quantity transfused was not large.

In an unfinished letter to you, I have adverted to the dissection of another transfused subject, in which the appearances are nearly coincident with this case.

The following is the statement referred to from Dr. Gale :—

Dr. M. Paine,

DEAR SIR,—Your request concerning the oily matter which I have noticed in the blood, I am happy to gratify, as far as I am able. The oily matter referred to above, is not that described by Lecanu, as discovered by Schwilgué. The former is obtained by solution of the solids contained in the blood, in alcohol ; the latter is found floating on the surface of the blood when taken from the body. The proportions vary with the stage of the disease, increasing as it is more advanced. Indeed, I have scarcely found any appreciable amount in patients that were not in a stage of collapse. It is greater after death than the usual increased proportion would furnish ; or in other words, the proportion is a constantly increasing one. The case you saw here last, I think, is a fair sample exhibited by post-mortem examinations. The portion of the oily matter in eight cases has been from one half to two per cent., which is the greatest proportion I have seen in any case.

The matter above mentioned, I believe, has not been described by any writer on the subject ; and though I have by no means found it in all the patients examined, and from whom I have taken cholera blood, yet in every case, except one, of post-mortem examination, I have perceived the oily matter, sooner or later, floating on the surface of the blood.

I have not yet ascertained whether it be a peculiar principle, or whether it be only the same as that described by Lecanu. I shall examine this matter as soon as I find leisure.

Respectfully yours,

L. D. GALE.

The case alluded to as ‘a fair sample,’ is that of the sailor. The blood was rather more than usually abundant in the heart and large vessels, of diminished fluidity, and very dark in the arterial system.

Very respectfully and very truly your friend,

John C. Warren, M.D. Boston.

MARTYN PAINE.

TREATMENT OF CHOLERA.

It has been already hinted, that it is in the forming stage only of the cholera we can do much good ; and here we can probably cure nine cases in ten. The general principles of treatment are well known to the faculty. The best mode of accomplishing the obvious indications is yet a fair subject of discussion ; and as connected with and illustrating this point, we offer the following note, published in a late London periodical, by Thos. Buchanan, an English surgeon of great respectability.

After some introductory observations, the author remarks :—

To enter into the symptoms, origin, and history of cholera, at present, is foreign to my intention. I shall here merely remark, that, from all I can glean, either from essays, periodicals, or oral relation, aided by my own observations on the several cases that have fallen under my care, this disease arises from malaria, *sui generis*, combined with a certain state of the atmosphere which acts with fatal rapidity on the human frame—affecting particularly the large glands—when debilitated by passion, fatigue, recent disease, exposure to the atmosphere in a languid state with an empty stomach, but more especially when the person suffers from destitution.

From this view of the subject, I was led to consider the disease as somewhat similar to the worst cases of English spasmodic cholera, modified by climate, constitution, &c. ; and that if I could combine or form any medicine, so as to determine powerfully to the surface of the body, and thereby promote profuse perspiration, the distressing symptoms would subside, or at least be greatly relieved. It is needless to tire you with an account of the various pharmaceutical experiments which I made, in order to form a mixture which would produce the effect desired. The following *recipe* is the result of my investigations :—

R. Ol. Olivar. : Tr. Acet. Opii gtt. xc. ; Ol. Cinnam. gtt. xx. ;
Tr. Iodinæ gtt. x. ; Spt. Vini Rect. 3j. ; Spt. Æth. Sulph. 3j. ;
Tr. Acaroid. 3ij. M. ft. Mistura.

To this mixture I sometimes add from thirty to sixty drops of tr. assa-fœt. with the very best effect. On visiting a patient with symptoms of cholera, I give the one half of the above mixture, and the other half in about an hour afterwards, unless previously ejected ; then I administer a fresh dose. If the case be very violent, I give the whole of the above mixture, and order additional blankets to be spread over the sick person, with stone bottles filled with hot water to be applied to the feet. This generally produces warmth and cessation of pain in a few minutes, especially in the milder cases. The patients have always expressed their satisfaction in the restorative and invigorating qualities of the medicine. After one or two doses have been administered, the pulse rises, the extremities become warm, the face resumes its natural color, and profuse perspiration takes place over the whole body. When the spasmodic symptoms have been very severe, there is generally great debility of the

system, for which I have given the decoct. dulcam. with good effect, keeping the bowels open by means of the following mixture :—

R. Pulv. Rhei. Pulv. Carb. Magnes. āā 3ss. Spt. Annis. gtt. xxx. Aquæ Cinnam. 3vij. M. ft. Mistura. Cap. Coch. ij. Mag. ter in die.

If the consecutive fever ran high, with strong pulse, I have taken from six to ten ounces of blood, and given a mixture of the Carbonate of Soda in Aqua Cinnam. But in general, the great and profuse perspiration relieves the whole system ; and except debility, and sometimes dyspepsia, the rest of the treatment consists in relieving any symptom which may arise from confinement, &c.

A table which follows the above, consists of a minute account of 24 patients, with their names, residences, &c. who were treated as described by Mr. B. The success is remarkable if the cases were severe, on which very important point the author is, unhappily, silent. It is stated, however, that, with the exception of two individuals, none found it necessary to repeat the dose more than three times, and most of them but once.

ANEURISM OF THE CAROTID ARTERY.

Wound of the Carotid Artery, Followed by Aneurism, and Cured by Ligature. By EDW. FRAS. DEHANE, M.R.C.S., of Eng.

LOUISA NEWELL, a delicate girl, ten years of age, on the 4th January last, in the act of going down stairs with a dish in her hand, slipped down, and in her fall broke the dish, a sharp point of which punctured the neck. On my arrival, a few minutes after the accident, I found the little girl bleeding profusely from a wound about an inch above the clavicle, in the course of the carotid artery on the right side. About two pounds of blood had been already lost, and she appeared rapidly falling into a state of syncope—her lips being pallid, her skin cold and clammy, and the pulse at the wrist not to be felt. The wound in the neck might be large enough to admit the end of the finger.

Being doubtful whether the patient would revive, I immediately applied a compress of lint over the wound, and caused it to be retained there by pressure, and, in the meantime, prepared ligatures, &c., to secure the bleeding vessel, but was surprised, upon its removal, to find that there was no hæmorrhage, notwithstanding she had very much revived from the state of syncope she had fallen into. I however waited some time, under the expectation of its renewal, but which did not follow, owing, as I suppose, to the obliquity of the puncture. I therefore secured the compress, and, having placed my patient in bed, left her. It was not until the fifth day afterwards that I removed the compress, when I found that the external wound had healed, but perceived a small pulsating tumor a little above the puncture. I desired the child to be kept quiet, and continued the pressure, both upon and below the tumor, as tight as it could be borne ; it, notwithstanding, gradually increased, but not so

much as to be very perceptible, till the night of the 19th, when it suddenly became enlarged to the size of a walnut, pulsating under the sterno cleido mastoideus muscle, and extending beyond it, and evidently in the line of the carotid—upon pressing which, all pulsation in the tumor ceased. At my visit on the following morning, I proposed to take up the vessel, which was immediately assented to by the parents of my little patient.

Having requested the attendance of my brother, Dr. Dehane, and Mr. Thompson, surgeon of this town, they agreed with me in opinion that no further time should be lost in performing the operation.

The patient being placed on her back, with her head inclining over the left shoulder, I commenced an incision from the base of the tumor, following the course of the sterno mastoideus muscle along its inner edge down to the clavicle. More difficulty was experienced in getting at the vessel than I had anticipated—the space between the base of the aneurism and bone not exceeding one inch, which small space was crossed by the thyroid veins, and moreover the depth of the cellular membrane was considerable, so that I could barely feel the vessel, with the point of my finger, by forcibly pushing back the sterno mastoideus muscle. I therefore found it necessary to extend the incision in a direction upwards and backwards, somewhat above the tumor; by doing which, I was at length enabled to get a sufficient space to pass my ligature round the vessel. This, however, I was unable to effect with the common aneurismal needle, but succeeded with an eyed probe, which I bent to an acute angle, and passed under the artery, armed with a single silk ligature; this being drawn tight, I had the satisfaction to find that all pulsation stopped in the tumor. The operation was thus concluded, without any further loss of blood than the trifling quantity which followed the first incision. I placed my patient in bed, and, having exhibited an anodyne, left her. At my visit in the evening, I found her tranquil, and free from pain; the right side of the face, which had become cold on tying the ligature, had resumed the natural temperature, and the pulse at the wrist was regular.

January 21st, 9, A. M.—Patient has slept well, but complains of a little thirst; pulse 125; skin rather warmer than natural; no pulsation in the tumor. At 10, P. M., has had more refreshing sleep; tongue slightly furred.—A saline aperient given, but has not acted; to be continued 3tis horis.

22d.—Slept well; skin more cool; pulse 125; bowels have not yet acted; wound looking well.—To take *Ol. Ricini*, 3ss. 2dis horis.

23d.—Bowels have acted—has had two motions; skin cool; pulse 120; tongue less furred; has passed a good night.

24th.—Slept well; pulse 110; wound uniting at upper part; slight watery discharge from the inferior part.—Cont. *Mist. Salin. Aper.*

25th.—Going on well. From this time to the 31st, when the ligature came away, no bad symptom had occurred. Pulse is now 90; discharge more healthy, and much less in quantity; wound nearly closed, and the aneurism diminished to about the size of a Spanish nut. About a fortnight after the last report the wound had quite healed, and the aneurismal tumor scarcely perceptible.—*Medical Gazette.*

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, SEPTEMBER 12, 1832.

CASES OF CHOLERA IN BOSTON.

THE following is an account of the fourth case of the malignant cholera that has occurred in this city, as communicated by Dr. Wood, the attending physician. The post-mortem examination of the fifth and last case, which occurred on the 7th, will be published in our next number.

On the 30th ult., a case of malignant cholera occurred in the neighborhood of Ann Street. The subject of this case was Clarissa Newell, aged thirty, of dissolute and very intemperate habits. On the 29th, the patient, laboring under slight indisposition, was induced to take a very considerable dose of epsom salts (about 3iss.); the consequence was, a profuse diarrhœa, which eventually terminated in cholera. A few hours after taking the medicine above mentioned, she very imprudently ate two cucumbers. Severe vomiting and purging occurred on the night of the 30th, about twelve o'clock. Two hours subsequent to this period, spasms commenced, and continued, with little intermission, until eleven o'clock. I saw her, for the first time, seven hours after the attack. The case had then become asphyxia; extremities cold and leaden colored; retchings violent; dejections involuntary; spasms of stomach and extremities; thirst extreme; tongue moist, coated, and somewhat cold; micturition totally suspended; abdomen hot and tender upon pressure, particularly about the epigastric region. Powders composed of ten grains of calomel and one grain of opium were prescribed, to be followed, each quarter of an hour, by two grains of camphor and two grains of calomel. To the abdomen and hands were applied sinapisms. A capsicum bath, as hot as might be tolerated, ordered for the feet; sinapisms afterwards; bottles of hot water for body and extremities. Shortly after the above orders were carried into operation, Drs. Bigelow, Stevenson, McKean, and Lewis, visited the patient with me. A temporary restoration of the pulse and evanescence of lividity were the only palpable amendments. The various remedies applied in this case proved devoid of any material efficacy, and the patient gradually sank.

The post-mortem examination was instituted three hours after death. In dividing the connecting medium between the sternum and mediastinum, a large vessel was opened; whether of the heart or not, is dubious. A large stream of blood followed the division, and more than half a pint was discovered in left side of the thorax. Lungs partially collapsed and crepitant; their appearance healthy, excepting a few old adhesions. Heart healthy in structure; its right auricle somewhat gorged, other cavities nearly empty; the left ventricle contained a small quantity of coagulated, black blood. Liver enormous in size, and paler than usual; may be plausibly ascribed to habits of ebriety. Gall bladder very full, but pervious. Serous coverings of the viscera present but little deviations from the healthy state. Vessels of the mesentery full

of blood. Stomach distended with gas and fluid, apparently the drinks used in the course of the day. Mucous membrane rather pale, except a little below cardiac orifice at the inferior curvature, there was a patch about the size of the palm of the hand of a dirty rose color. Intestines contain more or less fluid throughout; more abundant, flocculent, and of a whiter color, in small intestines than large. The mucous membrane of the small intestines, generally, was coated with a white, glairy, adhesive matter of the consistence of cream. The mucous membrane of this portion of the canal was highly injected, presenting a uniform rosy color; the mucous glands were enlarged, and of a dark red color. Bladder much contracted; its cavity very small, and containing over a teaspoonful of creamy matter. The lining membranes of the pelves of the kidneys coated with a similar substance.

EFFECT OF INHALING THE ATMOSPHERE EMANATING FROM THE PERSON OF A CHOLERA PATIENT.

THE following account of personal experience on this subject is given by M. Recamier, one of the physicians of the Hotel Dieu in Paris.

‘From the first days of the appearance of this malady, I had been struck in the presence of certain patients with a peculiar, and, as it were, metallic odor, and with a sense of dryness in the mouth, during my visit at the hospital.

The 9th of April, at my evening visit, I approached a choleric woman, in the last period of the blue stage. The skin was cold, and moistened with a sweat, which, as well as her breath, presented, in the highest degree, the peculiar odor already mentioned.

While I questioned this patient, being placed opposite her, I felt my mouth become dry, exactly as if I had gargled it with a solution of green vitriol. This dryness continued more than half an hour, and did not cease till I had spit several times. In the evening my appetite was diminished, and I experienced unusual borborygmi. These continued the next morning: I breakfasted with less appetite, and took a little mint-water to assist digestion. In the afternoon I had one liquid stool. Up to this time I had experienced no kind of derangement in the functions, notwithstanding excessive fatigue from loss of sleep. In the evening I took, as usual when fatigued, a bath at 25 deg. R., in which, as is also my custom, I washed my face and head with water at 16 or 17 deg.

The bath gave me much relief. There were, however, several liquid stools during the night, and the borborygmi continued. After the bath, I had a conference with Dr. Cayol, to whom I communicated my symptoms. It was agreed that I should take rest and favor perspiration.

Early on the 11th, I was visited by Drs. M. de Kerloy and S. de Lhuys, who are acquainted with my habits in health; afterward by M. Cayol, then by M. Wolowski. Neither of these gentlemen nor myself finding anything peculiar in the state of the circulation, I took three or four doses of six drops of laudanum, at intervals of two hours, in mint-water.

In the afternoon the pulse was more developed, the skin better colored, and the stools were suspended. M. Wolowski bled me in the arm, after which I perspired and continued to drink rice water. The blood drawn from the vein was rich, but less red than usual. In the evening and night I took some spoonfulls of rice, which passed very well.

12th. Some fatigue in the day, and laudanum suspended. In the evening, a return of the liquid stools to the number of six or seven.

13th. In the morning a warm pediluvium, warm cataplasm on the hypogastrium; drink of decoction of salep; feeling of diaphoresis, which continued the whole day; diminution of borborygmi; four doses of laudanum during the day.

On the 14th—rice broth answered as well, or better, than the salep had done; this day two stools, with a sensation of faintness. Took, as a lavement, one quart of rice water, with twelve drops of laudanum; afterward three or four spoonfulls of rice. I experienced the same feeling of faintness as soon as digestion was performed. On the 15th my health continued to improve. On the 16th convalescence was confirmed, but the sense of faintness after taking food continued. The urine continued cloudy several days.'

M. Recamier then mentions, cursorily, several cases analogous to his own, which occurred in persons attending on the same hospital. He concludes, from all these facts, that patients in the blue stage appear to communicate the disease to those inhaling, for a long time, the vapor from their bodies, or breath, and at the same time swallow the saliva; but that all danger may be averted by taking the precaution to turn toward the foot of the bed, and not to be in the direction of their breath and the emanations from their bodies.

Whatever degree of importance be attached to the facts or the reasoning in the above case, it is certain that, on the whole, physicians, attendants, nurses and domestics, in hospitals containing cholera patients, have enjoyed a remarkable degree of immunity from the disease. This is, generally, adduced as an argument against its contagious character. Such it undoubtedly is, although the evidence has been somewhat differently stated by the supporters of the opposite doctrines. But, in order to estimate fairly the bearing which this general fact, if admitted, ought to have on the argument, it is just to consider what circumstances in hospitals would tend to render the miasma, if generated by the persons of the sick, innoxious to those brought within the sphere of its ordinary influence.

In regard to the buildings themselves, the leading circumstances favorable to diluting the miasma would be the free admission into the wards of the external air. It is evident, at first view, how great an advantage, in regard to ventilation, a well situated and well regulated hospital enjoys over most of the houses inhabited by the poor in cities. The size of hospital wards, compared with that of the usual apartments of the poor, is, in this respect, of great advantage. It is true, that these wards may contain several patients; but a large room, containing twenty beds, and having numerous windows facing in opposite directions, can obviously be better ventilated than a small apartment, with a single inlet for the outward air, although the number of patients it contains may not exceed two or three. It may be added, that, with equal means of ventilation, the rooms of poor patients, when sick at their own houses, are not so likely to have the air admitted into them as the wards of a hospital. Whether this be, in all cases, in favor of the latter, may be disputed. But, considered with reference to the means of preventing infection, there can be no doubt that it is so.

Another advantage, in this respect, enjoyed by hospitals, consists in the immediate removal of nuisances as they occur. Without going to the same length as a late writer in an English periodical, and saying that

cholera is propagated wholly by the evacuations from patients laboring under it, we shall take it for granted that, if contagious at all, it must be so, in a considerable degree, by this means. The immediate removal of these evacuations, therefore, which of necessity takes place in hospitals, and which is very frequently neglected in the habitations of the poor, is a circumstance of no small moment in favor of the former. The same remark may be applied to the early removal of soiled linen, and in fact to every circumstance of neatness and care which characterizes a well ordered public establishment.

There are some circumstances, also, in the persons of those exposed in hospitals, as compared with those similarly exposed in private dwellings, which must tend, on the whole, to procure to the former an exemption from contagious influence. The attendants in public hospitals, generally, are, and certainly should always be, neat in their persons, temperate in their habits, regular in their hours, and free from depressing emotions. Those attending on the sick poor in private houses are often dirty, irregular in the use of food, if not actually intemperate, obliged to unite in the same person the offices of nurse and watcher, and this often under the influence of fear on the one hand, or the equally depressing influence of that personal attachment which wastes the body by anxiety as well as labor, and renders the effect of fatigue insensible until the system is utterly exhausted and falls an easy victim to the inroads of the destroyer. If these considerations, and many others which might be adduced, be allowed their due weight, the degree of exemption enjoyed by the inmates of hospitals will, without involving the question as to the nature of the disease, appear, in some measure, to be accounted for.

Case of Ligature of the Penis.—The following is a curious case, and might be interesting as a medico-legal fact. A Jewish boy, four years old, was suckled by a nurse whom the family became dissatisfied with and dismissed. Two days afterwards, Dr. G. was sent for, on account of painful swelling of the boy's penis. On accurate examination, he found a long hair of the head five times wound round the root of the penis, precisely in the same furrow, and each time tied firmly with a knot. With great difficulty the hair was discovered, and removed from the deep incision it had made; after which, emollient applications speedily healed it: but, had it remained a short time longer, gangrene would inevitably have occurred. 'Very probably,' says Dr. G., 'the nurse wished in this manner to avenge herself for her dismissal.'—*Rust's Magazine*.

Foreign Substances in the Body.—GLASS. A man accidentally broke a bottle in pieces in his hands; he picked out all the fragments, as he thought, and the wounds soon healed. Still, when working, he constantly felt pains in one hand, and sometimes it used to swell greatly. In twelve years and a half after the accident, he had occasion to make a great exertion with the same hand, whereupon he felt a violent pain in it, which lasted for some weeks. An opening then appeared on the palm, and a surgeon, on probing, found some foreign substance, at considerable depth from the surface. He enlarged the opening, and extracted a splinter of glass, one third of an inch long, and a line in thickness, together with three smaller pieces, which had probably been broken off from the larger one.

A NEEDLE. A man felt a stinging pain in the upper part of the right

arm; a surgeon put a plaister on the spot, and for years he felt neither pain nor swelling. On a sudden he felt the same kind of stinging at the opposite side of the arm, and a needle, nearly three inches long, was extracted from it. He could not tell how the needle got into the arm.

A PIN. A woman got a blow upon her breast, and thought she felt a pin stick in her. Seven years afterwards, as she was washing herself, she observed a pin protruding from the skin of the part, and succeeded in extracting it.—*Rust's Magazine.*

Several valuable communications were received too late for insertion in the present number.

Whole number of deaths in Boston for the week ending Sept. 8, 32. Males, 14—Females, 18—Still-born, 1.

Of inflammation in the bowels, 2—scarlet fever, 3—intemperance, 2—canker, 3—paralysis, 2—consumption, 4—infantile, 3—dropsy in the brain, 1—typhous fever, 3—bilious colic, 1—abscess, 1—lung fever, 1—dysentery, 1—malignant cholera, 1—inflammation in the stomach, 1—accidental, 1—cholera morbus, 1.

ADVERTISEMENTS.

BOYLSTON MEDICAL PRIZE QUESTIONS.

At the Annual Meeting of the Boylston Committee on Prize Questions, held on Wednesday, the 1st day of August, 1832, a premium of Fifty Dollars, or a Gold Medal of that value, was awarded to Robert W. Haxall, M.D., of Richmond, Virginia, for a Dissertation on the following question: 'What is the cause of *Fistula Lachrymæ*; and what is the best mode of treating this disease?'

The following questions for 1833 are before the public, viz: 1st. 'The History of the Autumnal Diseases of New England.'

2d. 'What Insects in the United States, and particularly in the Northern part, are capable of inflicting poisonous wounds? The phenomena of such wounds, and the best mode of remedying their ill consequences?'

Dissertations on these subjects must be transmitted, post-paid, to John C. Warren, M.D., Boston, on or before the first Wednesday of April, 1833.

The following questions are offered for the year 1834, viz: 1st. 'What is the true nature of *Polypus* in the nostrils; and in what manner may the disease be best treated?'

2d. 'Are the restrictions on the entrance of vessels into port, called Quarantine Laws, useful? If so, in what cases should they be applied?'

Dissertations on these subjects must be transmitted as above, on or before the first Wednesday of April, 1834.

The author of the successful dissertation on either of the above subjects, will be entitled to Fifty Dollars, or a Gold Medal of that value, at his option.

Each dissertation must be accompanied with a sealed packet, on which shall be written some device or sentence, and within which shall be enclosed the author's name and place of residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, if called for within one year after they are received.

By an order adopted in the year 1826, the Secretary was directed to publish annually the following votes:

1st. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which the premiums may be adjudged.

2d. That in case of the publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

GEORGE HAYWARD, Secretary.

Boston, August 4, 1832.

HARVARD UNIVERSITY.

MASSACHUSETTS MEDICAL COLLEGE.

The Medical Lectures in Harvard University will begin in the Medical College, Mason Street, Boston, on the third Wednesday in October, at 9 o'clock, A. M., and be continued four months.

Anatomy and Surgery, Dr. WARREN.

Chemistry, Dr. WEBSTER.

Materia Medica, Dr. BIGELOW.

Midwifery and Medical Jurisprudence, Dr. CHANNING.

Demonstrations in Anatomy, Dr. LEWIS.

Theory and Practice of Physic and Clinical Medicine, Drs. JACKSON and WARE.

At a meeting of the Medical Faculty, held February 17th, 1832, it was

VOted: That in all future examinations for the Degree of Doctor in Medicine, examinations in Natural Philosophy and in the Latin language shall be conducted in the same manner as the examinations in the other branches required by the Statutes; and that an acquaintance with these branches will be insisted on as requisite for the admission to the degree.

The examination in Latin will be made in Cicero's Select Orations; and in Natural Philosophy, in Grand's Elements of Natural Philosophy.

Boston, July 24, 1832.

WALTER CHANNING,

Dean of the Medical Faculty.

The Massachusetts General Hospital is open to the Medical Class for the practice of Medicine and Surgery.

The amount of Fees will be the same as heretofore.

THE
BOSTON MEDICAL AND SURGICAL
JOURNAL.

VOL. VII.] WEDNESDAY, SEPTEMBER 19, 1832. [NO. 6.

REMARKS ON THE CHLORIDES AND CHLORINE.

The Chlorides and Chlorine as 'Disinfecting Agents,' and as Preventives of Cholera. By HENRY BRONSON, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

SOME weeks ago, in a series of letters from Canada, I ventured to make some remarks respecting the anti-cholera powers of medicines as preventives. Strong doubts were expressed of their utility, or even safety, whether taken into the stomach or breathed in the form of fumes or gases. Even *Chlorine* was thought exceptionable. My object was to shake the public confidence in all *nostrums* and *specifics* for the preservation of health, and in all *substitutes* for real cleanliness. For all this I was censured. My sentiments were judged heterodox. My object now is to show the *grounds* of my opinions as then expressed, and particularly to state the arguments and the facts which bear upon the question as to the efficacy of the *Chlorides* as 'disinfecting agents.'

It seems to be taken for granted by most non-professional and by many professional men who have thought little upon the subject, that a disease which is ascertained to originate and spread independently of a contagious influence, is of course *atmospherical*. This is entirely a gratuitous supposition, unsupported by a single fact, and contradicted by many obvious truths. If it is said that there is any change in the component parts of the atmosphere, the assertion is destitute of proof. The most accurate philosophical analyses and experiments can detect no alteration. Its proportions are the same where cholera is raging in its direst form, and where no such disease is present. If it is affirmed that a foreign substance in the form of a gas or vapor, or in some other state, is introduced into the air, combining or mixing with it, and by its deleterious action upon the system giving a predisposition to the disease in question, the assertion again is void of proof. No one has ever discovered such substance, and facts would seem to render its existence impossible. Ponderable matter in any shape, even though it be a gas or vapor in the most tenuous form, when diffused in the atmosphere, is subject to the laws of matter. It moves with the element which contains it; it is driven by currents. But can the course of the cholera be calculated by the course of the winds, like the smoke of our chimneys or the clouds over

our heads? Is it facilitated or retarded in its march by the motion of the atmosphere? It travels with the same equal and resistless step in the face of the monsoons of India, as when aided by the strength of a tempest. It does not receive wings from the hurricane, nor is its flight arrested by a calm.

If I am asked the essential, non-contagious cause of cholera, I answer frankly—*I do not know*. Every agent in nature, real or imaginary, has been accused. Electricity, magnetism, earth, air, water, sun, moon, planets, comets, have each been arraigned in vain. There is a mystery which hangs over the origin and spread of epidemics, which will probably never be removed. The philosophers of the present day are no wiser on this subject than those who lived three thousand years ago.

There is, then, not a particle of evidence that the general atmosphere where cholera prevails is changed, or contains any impurity. On the contrary, all the evidence which exists upon the subject is against such a supposition. What folly, then—what short of empiricism—to charge the element we breathe with the smoke of gunpowder, the fumēs of tar, brimstone, camphor, with chlorine and every species of stench, for the purpose of *purifying* it and rendering it wholesome! Does common sense teach us to introduce into the air by which we are enveloped, which contributes to sustain us, and which there is every reason to believe pure, a known noxious substance (chlorine), for the purpose of neutralizing or destroying an unknown something, of unknown powers, and of improbable existence? It scouts the idea.

Among the various substances which from time to time have been brought forward and lauded as ‘disinfecting agents,’ chlorine is perhaps the only one which at the present day deserves attention. The parade of pretended science with which its claims have been urged and defended, and the specious but superficial reasoning with which they have been supported, render its nature and its asserted powers worthy of examination.

Chlorine (the active principle evolved from the chlorides) is one of those acrid and poisonous gases which when respired in any considerable quantities occasion serious derangement in the animal economy, or even destroy life. It produces great irritation of the bronchial passages—manifested by heat, pain, stricture, &c.—which is followed by inflammation and destruction of the function of the lungs. If an animal is immersed in it, he dies suddenly of asphyxia. When largely diluted with common air, it occasions cough, dizziness, tightness across the chest, and an urgent desire for fresh air. These effects, if they do not result in speedy inflammation, or throw the system into some disease to which it may be at the time strongly predisposed, gradually cease as the constitution becomes accustomed to the agent. Like other poisons, by incessant and protracted use it finally becomes comparatively inert. The system calls into requisition its powers of resistance, gradually adapts itself to the noxious substance, and finally tolerates it with little injury. In very minute doses, it may be breathed without any appreciable effects. All the virulent poisons, such as arsenic, prussic acid, nux-vomica, böhon upas, opium, &c. may be used in small quantities with safety; yet who would think of employing them except for urgent sickness? Who

would be mad enough to swallow them on the supposition of his *possible* illness, when he has every symptom of health? And who would be willing to inhale the noxious fumes of the chlorides, because some visionary has idly conjectured that the air may be impure, when it has every appearance of purity, and when at the same time the fact is assumed—not proved—that chlorine has an universal power over atmospherical contaminations?

Of the effect of chlorine in destroying some of the fetid gases, I am well aware. It does this (generally at least) by its powerful affinity for one of the elements (hydrogen) in the composition of those gases, detaching it, entering into combination with it, and destroying the compound. This is a common effect of chlorine. But there *are* offensive gases upon which it has no effect; at least, when used in such small quantities as not to render the air which contains it irrespirable. The truth of this remark I have often proved in dissecting rooms. In such places the 'purifier' has often failed to remove stench, even when the apartment was strongly impregnated with it, as evinced by the senses and the appropriate tests. A similar failure has often happened when a strong solution has been applied to decomposing animal matter. Sores and ulcers giving forth an offensive effluvia have not been uniformly deprived of their fetor by its application. Similar results have been witnessed by others. Chlorine, then, is no more of a specific for stench, than Swaim's panacea is for indigestion. This is readily accounted for. Fetid gases are not necessarily compounds of hydrogen; and those that are so may retain this element by a strength of affinity which is too powerful for chlorine to overcome. Such gases or substances are often, probably, of a specific nature—peculiar proximate principles formed by peculiar chemical agencies. When such is the fact, 'the universal purifier' is little better than burning tar or feathers. While chlorine, then, is an agent of considerable power in destroying bad smells, entering chemically into combination with one or more of the elements which compose them, it is not a *specific*.

It is believed that the knowledge of the power of chlorine over offensive odors first suggested its use as a 'disinfectant.' At the time of this suggestion, the shades of alchemy were not entirely dispelled. Men occasionally dreamed about 'the philosopher's stone,' and 'the elixir of life.' Chemistry was thought to have an importance among the sciences which it does not possess. Not only inorganic matter, but organic beings, were supposed under the dominion of its laws. The animal fluids were considered definite chemical compounds, which it was not beyond the powers of the laboratory to simulate. The matter of contagion was considered a gas not unlike what 'chemists are accustomed to catch in their receivers,' and the cause of epidemic and malarious diseases a similar gas floating in the atmosphere. The foul air which commonly surrounds the beds of the sick was identified with these aerial poisons, and it became an object to correct it. The 'purifier' (chlorine) was applied. If odor could be removed, or drowned and rendered imperceptible by a more powerful stench, all was considered safe. This is the way in which the 'preventive' came into use. The chemist, instead of *trying* his *infallible* and collecting *facts* in proof of its efficacy, sat qui-

etly speculating in his closet. If his dogmas were doubted, he refuted the sceptics by an appeal to experiments made in his laboratory. This is the kind of *science* which has made so much noise in this matter.

There is a great error prevalent—particularly among those of little medical reading—respecting the agency in disease of *those gases perceptible by the senses* which are evolved from decomposing organic matter. Though I cannot persuade myself that they are entirely harmless, yet abundant observation has conclusively proved that they act a very subordinate part in the production of disease. There is the best reason to believe that the deleterious principle which is evolved from filth—from vegetable and animal bodies in a state of decomposition—does not reside in those effluvia which are most obnoxious to the sense of smell; but in something else which is tasteless, inodorous, and often too subtle for the tests of chemistry to detect. There are numerous facts which show the inadequacy of the fetid gases alone to produce serious derangements of the health, much more endemic or epidemic diseases. The stench of slaughter-houses, barn-yards, privies, dissecting rooms, masses of putrifying animal matter, &c. particularly where there is free ventilation, although so concentrated as to produce occasional nausea and vomiting in those unaccustomed to it, and so abundant and diffusible as to impregnate the air for a furlong around, has been satisfactorily shown to have often no effect upon the health of those who are constantly exposed to it. Upon the sea-shore of New England, the farmers make much use of fish as a manure, leaving them to putrify and dissolve upon the soil. A powerful and most offensive odor is evolved, which is conveyed on the winds to the distance of miles, sickening the stomachs of passers-by; and yet no ill effects are experienced by those who turn up and till the ground. The facts of this description are so common that many physicians have contended that *animal* putrefaction is never productive of sickness. If fetid exhalations were of themselves sufficient to occasion permanent disease, or were indicative of an atmosphere *necessarily* unwholesome, surely no such facts ought to exist.

Again, intermittents, bilious fever and yellow fever, which are generally admitted to be produced by the effluvia of animal and vegetable relics (particularly the latter) in a state of decomposition, frequently prevail to a most alarming extent, and with singular fatality, when the senses recognize no contamination of the air, and when of course no *fetid* gases exist. We come to the conclusion, then, which has often been arrived at, that *fetor* merely has little to do with sickness or health—that decomposing organic matter often evolves a most deadly poison which has neither smell nor taste—that the removal of nauseous odors in using the means of cleanliness is a matter of secondary importance—and that the employment of chlorine, as one of these means, which has no ascertained power over anything but stench, and only a limited power even over this, is of little real service.

But suppose the fetid gases are deleterious to health; and suppose that chlorine, under favorable circumstances, will destroy them: is it easy to regulate the quantity of the latter necessary to decompose the former, and have none in excess? Is it not always required that the chlorine should be greatly in excess in order to effect this decomposition with any

certainly? And is not this *free* chlorine productive of altogether greater and more certain injury than could possibly have resulted from the effluvia it was designed to destroy? But on the supposition that the 'disinfecting agent' can be employed in the precise quantity required to decompose an offensive gas, and does actually decompose it, what is the result? A substance is formed, consisting of chlorine and the hydrogen which it has detached from the offensive compound. This is muriatic acid gas. It is acrid, irritating, and irrespirable; as poisonous as chlorine, and far more destructive to life than the fetid gases for which it is a substitute. A bad smell is indeed exchanged for one more tolerable; but, at the same time, an agent decidedly noxious is added to the atmosphere in the place of one which was hardly injurious.

In the preceding remarks on the employment of chlorine, I have considered it as mingled with the air we breathe—the way in which it is ordinarily recommended and used. But there is another mode of employing it. The apartment to be purified may be vacated, a vessel containing the materials for evolving the gas placed within it, and the doors and windows closed. The room is thus soon filled with the chlorine. After a few hours, it may be opened and thoroughly ventilated. If everything which is capable of contaminating the air has been previously removed, the apartment will now perhaps be found sweet and wholesome. But chlorine gas is not the only one which will do the same. Any of those which have energetic decomposing powers will accomplish as much. The nitrous acid gas has often been effectually used for this purpose. Indeed, the free use of soap and water alone, aided by a plenty of pure air, never fails to answer a similar end. While the effects of the latter are equally or more certain, they can always be used without endangering the health.

Of the power of chlorine over the principle of contagion or infection, so roundly asserted by some modern alchemists, there is not a particle of evidence. True, indeed, if you could catch this principle in the bowl of a spoon, and pour upon it a concentrated solution of chlorine, there is little doubt you would destroy its activity. You might do the same with nitric, or muriatic, or sulphuric acid, or any other powerful chemical agent. The virus of smallpox or cowpox may be readily destroyed in this way. The mode in which this is done may be easily conceived, by observing the action of oil of vitriol or lunar-caustic upon the surface of a fresh wound on the body. A complicated chemical change is effected, the nature of which is not exactly understood. But I am not considering the influence of chemical agents on the contagious virus enclosed in vessels, but when diffused in the atmosphere. *When in this state*, if the 'disinfectant' in quantities not irrespirable can destroy it, those who assert that it can, ought to prove it. This has not been and cannot be done.

On a question of the kind under consideration (the 'disinfecting' powers of chlorine), the burthen of proof devolves upon the advocates of the chlorides. Until they have collected an adequate number of *facts* (not inferences) in support of their case, their statements are deserving of little credit. But where are these facts? The subject has been long before the public. The claims of chlorine have been asserted and reasserted. It has been employed for a length of time and on an extensive

scale in epidemic, endemic, and contagious diseases ; and what is the result ? It has been used in cholera wherever this disease has appeared—in Russia, Germany, France, England, Canada, and the United States ; and what that is new have its advocates to say in its favor ? Were its powers such as they have been maintained to be, would not this matter long ago have been put to rest, and the voice of cavilers and sceptics silenced ? No new evidence seems to have been gathered upon the subject. Nine-tenths of the medical world still go on doubting, while chemists continue their scientific reveries, publishing to the world their closet speculations, and anon repeating the stale story about ‘the cathedral of Dijon.’ When the cholera commenced its ravages in Albany, high hopes were entertained of arresting its progress by the chlorides. All took good care to lay in a supply of ‘the preventive.’ Everything inside and out was deluged with the ‘disinfecting’ gas. One’s chance of safety seemed to be considered directly as the quantity of chlorides he had with and about him. What followed ? The disease increased, as it had been wont to do in other places. Men sickened and died. Some fell victims with ‘the immortal catholicon’ in their pockets ! People lost confidence in their protector. It went out of fashion and was abandoned, and presently the pestilence took wings. While the epidemic was among us, I watched closely and incessantly the effect of the means which were used as preventives. Burning tar, the fumes of sulphur, and the exhalations from the chlorides, were all fairly beaten. The latter seemed nothing better than the others ; that is, it was of no service at all. I have diligently searched, and have not been able to collect a single unequivocal fact to show that its use has with us been attended with the least benefit. Nor have I met with one who has been more fortunate than myself. Many who were its advocates in the beginning, were faithless towards the close. Most of the physicians here are now either indifferent or entirely sceptical as it regards the ‘disinfecter.’

But has chlorine had no positively injurious effects in the profusion in which it has been used as a *cholera preventive* ? Is it easy to conceive that the inhalation of so noxious and powerful an agent can be a matter of indifference, especially when the system is in a state of lively susceptibility to the action of causes disturbing the health ? Where cholera prevails, there is an universal predisposition to disease—a predisposition which is kindled into a fatal blaze by the application of a spark. An injurious impression made upon the body, whether through the medium of the stomach or lungs, which in other circumstances would be productive of little harm, will *in this state* be followed by sickness and death. Is it safe, then, to recommend the general breathing of chlorine where this epidemic is raging ? Is it not eminently hazardous ? Would not this measure, if adopted, instead of preventing the disease, add to the exciting causes of an attack ?

But what are the *facts* upon this subject ? Enough have occurred in this city to satisfy any candid mind that the gas exhaled from the chlorides is *not innocuous*—that it cannot be respired with impunity where epidemic cholera is prevailing—that its tendency is to augment and not to diminish the number of the sick. It has taken rank here among the numerous exciting causes of disease, and has not been least in impor-

tance. I have experienced inconvenience from it myself, in common with many others. The effects on susceptible persons have often been powerful. On such, a state approaching asphyxia has sometimes been produced while walking the streets. An attack of the epidemic has in more than one instance been satisfactorily traced to the free respiration of chlorine. One physician has mentioned to me a remarkable instance. All the members of a large and respectable family were seized with the symptoms of the malady within eighteen hours after a liberal use of the 'preventive' in all parts of their dwelling. Their physician not unreasonably attributed their sickness to the said 'preventive.' I could mention other instances hardly less melancholy. I learn from a private letter, from a respectable source, that effects of a similar description were witnessed in Paris, during their late epidemic, on a much larger scale. Chlorine, then, is about as much of a cholera preventive as ardent spirits.

But there is an *indirect* injury which is liable to result from the recommendation and use of the chlorides, which has not yet been alluded to, and which is of no slight magnitude. If the people are made to understand that these substances are adequate to the purposes of cleanliness, they will resort to them on the score of economy, to the neglect of more effectual and expensive means. We might argue this from the known mental constitution of man. This was argued and the consequences predicted. What was feared has taken place. Cleanliness with us has been neglected. Faith in the 'disinfectants' has been one cause of this neglect. Filth, instead of being removed, has been too often merely sprinkled or mixed with the chlorides. This has not only been done *about* dwellings, but *within* them. I have seen the floors, furniture, &c. literally *plaistered* with a mixture of filth and 'the preventives.' *Removal* has too frequently been neglected, even when practicable, in consequence of its being thought unnecessary. It is laborious and expensive, and was so considered. Besides, it is an *antiquated* mode of making clean, and, moreover, is highly *unscientific*. *The new and improved plan* was enthusiastically adopted. Matters were conducted on *chemical principles*. Common sense was scouted, and her place occupied by a nobler genius—the genius of philosophy. The old and vulgar means of purifying, such as washing, and scouring with soap and water, ventilation, sweeping, scraping and removing, &c. were frequently abandoned, not only as costly, but *as behind the improvements of the age*.

Considerable authority has been quoted on the question under examination, which would seem to controvert the opinions and arguments which have been advanced. Though *authority*, unsupported by facts and reasoning, passes for little with me, it may do with some. By the way, if a question relating to the 'disinfecting' power of a substance is to be determined by the numbers of those who assert it—those who give their opinions and then vouch for their truth—chlorine is not entitled to our *exclusive* confidence. The nitrous acid gas was once brought forward with extravagant pretensions as a purifier and antidote to contagious and miasmatic emanations; and if its efficacy is to be judged of by the numbers and respectability of those who attest it, it is far better deserving of consideration and respect than the *modern specific*: and yet, the nitrous acid gas is now little thought of by the *scientific* world. This is because

its *modus operandi* in destroying morbidic miasms cannot be explained by *chemical laws*! [See Medico-Chirurgical Review, Vol. X. page 355.] For the benefit of those whose minds are swayed by authority and names, I shall make a few extracts—all which my limited space will allow—chiefly from *medical* writings, for the purpose of showing the sense of the profession on the powers of the chlorides as ‘disinfecting agents.’ And here may I take the liberty to say, that *physicians* [all M.D.’s are not physicians], from their opportunity for observation, their intimate knowledge of *facts* and all their bearings, and their acquaintance with the correct mode of reasoning on medical subjects, are best capable of passing a correct judgment on a question like that under consideration. Those who have appeared as the advocates for chlorine, have been almost to a man *chemists*, who have had no *practical* knowledge of the subject which they have handled. Their *facts* have been gathered in the laboratory. Their conclusions have been the fruit of study. Their philosophy has been the result of speculation. How much, then, are their assertions and opinions worth?

The Medico-Chirurgical Review, the highest authority on any medical question, says :

‘We object to coupling the words *purification* and *disinfection*. Bad smells may be corrected, and contagion still remain. We have always upheld the doctrine that ventilation is the best and safest disinfectant. To *remove* the infected air is surely more effectual than to correct or cover a fetid exhalation floating in it.

‘With cleanliness and ventilation there will be little or no danger—without these, we should have no confidence in the chlorurets’ (chlorides). Vol. X. pages 355, 356.

The following paragraphs are taken from the Westminster Review, No. for October, 1831.

‘Little reliance, it would appear, is to be placed on any of the disinfectants which have as yet been tried.

‘But free and frequent ventilation is certainly more to be depended on than any or all these modes of purification’ (purification by the ‘disinfectants’).

Dr. Caldwell, of Kentucky, a gentleman of general science and of great eminence in his profession, uses strong language upon this subject.

‘Combustion excepted, I repeat, that thorough washing and ventilation are the only certain means discovered, to purify foul and sickly ships, and render them the abodes of cleanliness and health. Of hospitals and infirmaries the same is true.

‘It is not only useless, then, it is injurious, to fill the wards of receptacles of the sick with suffocating and irritating fumes and gases, to the annoyance and distress of patients with tender eyes and weak lungs. I have never seen a place thus fumigated, without exciting among the sick painful coughing and other disagreeable affections. And if disinfection seemed to be the result of the process, it was owing to the other means used at the same time, and not to fumigation.

‘Shall I be told, in objection to my opinion on this subject, that chlorine gas and some others destroy the fetid exhalations emitted by putrid animal matter, and in that way contribute to purity? The fact is known

to me ; but it is also known, that such exhalation is not the febrile miasm of which I am treating. That poison exists in its most virulent and destructive condition, unaccompanied by any odor. It does not follow, therefore, that because chlorine gas destroys the fetor arising from the dissolution of animal or vegetable substances, it will also destroy the poison. This loose substitute for reasoning is an abundant source of error and mischief. Nothing but an accurate and successful experiment is competent to prove that any known gas is capable of uniting with febrile malaria, and neutralizing it. And as far as I have been able to inform myself, such an experiment has never yet been made. Hence the belief in the (anti) miasmatic properties of the gases referred to is nothing but hypothesis.'—[American Journal of Medical Sciences for August, 1831.]

Dr. Drake, of Cincinnati, a physician of great celebrity, uses the following language :

'Not the least reliance is to be placed on lime and its chlorides as *direct* preventives of epidemic cholera ; and no great confidence ought to be reposed in their power over nuisances. It is better to remove putrescent matters than to correct their stench with lime, or even the boasted chloride. Moreover, an independent use of the last may and often has proved injurious to health ; the chlorine gas which is liberated being, if breathed undiluted with atmospheric air, a more deadly poison than that which produces cholera.'—[Treatise on Epidemic Cholera, July, 1832.]

Dr. Tully, of New Haven, whose standing as a professional man and as a chemical philosopher entitles his opinions to great weight, in a private letter, dated August, 1832, says :

'I concur with you most fully in regard to the supposed efficacy of the chloroxids of calcium and sodium (in other words the chlorides), and even chlorine itself, either for the destruction of specific contagions, morbid miasmata, or epidemic causes, whatever they may be. I have come to this conclusion, because I have not seen even a particle of evidence in favor of what is called their *disinfecting* powers. I do not know, however, that, on a subject of this nature, a negative can be proved. The *onus probandi* must rest on those in the affirmative. Now where are the proofs ? If there are any, would they not long before this have been adduced ? That the chloroxids, and especially the chlorine itself, will frequently destroy offensive smells or odors, I do not pretend to question ; but they certainly do not do this universally. I have myself often known them fail.

'It is well known by physicians that those effluvia which are most manifest to the senses, possess but little if any power in the production of disease ; while those which are most noxious have no sensible properties. The contagion of smallpox and measles, and the power or influence by which jail fever is produced, cannot be recognized by the senses.

'I have long been satisfied, that washing with soap and water, and ventilation, are the only adequate means of purification, and, I will add, *disinfection* (as the fashionable and cant phrase of the day is).

'In addition, it appears to me that the chlorides, when freely used,

may do injury. They may prove exciting causes of disease, when the predisposition is strong, like other noxious exhalations.'

Dr. Yates, of New York, makes some very sensible remarks on this subject :

'The power of "disinfecting agents," except on stench and putridity, I deem extremely problematical. We want proof that the atmosphere is less pure now than at other seasons. We want proof—only *probable* proof—that the air contains a particle of infecting matter,' &c.

'But allowing that imperceptible particles of infectious matter exist in the atmosphere, what proof have we that the chlorides will alter their nature or their properties? Only from this analogical deduction, that inasmuch as chloride destroys the stench of putridity, it must of consequence destroy the substance matter of infection—an unphilosophical deduction at best. But let us come to a case in point. Will chloride destroy the poisonous quality of arsenic, the emetic property of antimony, or the soporific effect of opium? If not, what right have we to suppose it will otherwise affect an imaginary particle of poisonous matter floating in the atmosphere? We *cannot* know, from anything that has yet been discovered, that chlorides have the slightest chemical influence on the quality of *any* matter except its odor, much less on that of the matter in question. Hence, I conclude that all the expense incurred in their distribution throughout our streets and yards, is a mere boon to public alarm and prejudice.'—[Yates on Asiatic or Spasmodic Cholera, August, 1832.]

I shall now make an extract from a letter from Dr. Parsons, of Providence, to a gentleman in Boston. The letter was designed to show the inefficacy of the 'disinfectants.'

'The sloop Hero sailed from New York on the 17th of July (1832), with thirty passengers on board, and was quarantined at Newport eight days from her time of leaving that city. On the day of landing the passengers, four of them were immediately attacked with Asiatic cholera, and died in a few hours. *This vessel had five tons of best Scotch chloride of lime on board, shipped on the 14th of said month; any one cask of which, the owner informs me, would give out through the staves sufficient gas to saturate the atmosphere of the vessel as effectually as would be done if the floors and decks were sprinkled with the powder. Yet with thirty such casks between her decks, this happens to be the only vessel out of the great number arriving with passengers from New York, that has brought any person infected with the disease'!!*

This statement, methinks, must prove of difficult digestion to the advocates of '*preventives*.' It contains an argument which may serve any purpose but theirs. It seems to prove that chlorine is not *the specific*, after all—that *science* is not always triumphant. It reveals a *fact* which may be justly regarded as an outrage on *rational chemistry*.

Albany, September 6, 1832.

N. B. As this subject has engaged the attention of the New York public, the author will send a copy of the above communication to one of the papers of that city, to be published simultaneously with this in the Journal.

CASE OF CHOLERA AT MIDDLETOWN, CONNECTICUT.

OUR correspondent at Middletown has very politely forwarded us the following sketch of the case of cholera which proved fatal in that town in the course of the last month.

Oliver Smith, aged forty-five, by occupation a butcher, on Saturday, August 25th, was seized with a diarrhœa, to which he had been occasionally subject. He continued his occupation through the day, and it seems that there was no disturbance of the bowels during the greater part of the night following. On Sunday morning, the 26th, at three o'clock, A. M., the diarrhœa returned with redoubled violence, attended with slight spasms of the limbs; so that between that time and twelve o'clock, he judged that he had thirty dejections, which were very copious, of a fluid nearly colorless, except that it had the tinge of dirty water. At twelve o'clock, he was seized with violent spasms in the legs and lower extremities, which induced him to send for a physician, who arrived within about half an hour. He found the patient with a haggard countenance, expressive of great anxiety. The cramps continued, and by turns were attended with such agony that his cries were heard in the adjoining houses. There was a slight nausea, the skin was cool, and the pulse nearly extinct at the wrists. By external and internal remedies the diarrhœa and cramps were checked, and a tolerable but moderate warmth was produced, while the body was covered with sweat. But this was all that could be effected. About three o'clock, P. M., there was a copious, involuntary evacuation from the bowels, of a colorless, limpid fluid. The nails were purple, and some parts of the skin livid and corrugated; the left hand and arm, more especially, were of a very dark hue, and appeared as if they had been stained with a deep blue or black dye. Slight spasms were occasionally observed through the remainder of the disease. A considerable part of the adnata of each eye appeared to be suffused with black blood, which had a margin as distinct as if the blood had settled from an external injury. Though the mind was weakened, the patient was neither comatose nor delirious, till after he sunk into the dying state. Like many other people, he gradually lost his senses, but in a very different manner from those who fall into coma, or the apoplectic stupor of low fever. The powers of life sunk so rapidly, that by three or four o'clock, P. M., he appeared to be actually dying. This state continued, without any revival or sensible reaction, till half past seven o'clock, on Monday morning, the 27th, when he expired.

THE PATHOLOGICAC VARIETIES OF CHOLERA.

[Communicated by Dr. Warren for the Boston Medical and Surgical Journal.]

New York, Sept. 5, 1832.

MY DEAR SIR,—I have endeavored to communicate to you, hitherto, such of the cases of cholera asphyxia, in which I have made post-mortem examinations, as should best illustrate the pathologiac varieties which

occur in that disease. Parallel cases would but encumber the Journal in which you have done me the honor of making this publication, and would afford no interest to yourself from the multiplicity which are now on record.

Through the continued politeness of my friend, Dr. Rhineland, I assisted in the dissection of a subject at the Crosby Street Hospital this morning, whose case adds to the variety of morbid appearances which have fallen under my observation.

The subject was a laborer, about forty-five years of age, and his habits generally temperate. He was admitted yesterday in the stage of collapse; and after suffering severely the usual characteristic symptoms, died in the evening. The examination began about twelve hours after death. Surface natural, features contracted, muscles rigid, abdomen tumid. Stomach and small intestines inflated, the latter more than usually florid. Veins of the epiploon and mesentery full. Peritoneal investment adhesive to the touch. Mucous membrane of the stomach natural, of the small intestines slightly vascular, but the redness existed principally in the serous tissue. As is common in cholera subjects, where redness of the small intestines occurs, it abounded most in the ilium. There was little else in the canal than a cream-like mucus, which was found in a preternatural quantity, but adhering to the membrane. The large intestines were contracted through their whole extent to about two thirds of an inch in diameter. The cæcum was also contracted in a corresponding degree. They of course presented a knotted appearance. The color was healthy, and in every other respect they were perfectly natural. They contained nothing but mucus, less abundant than in the smaller portion, but very similar in sensible properties. This is the second instance only in which I have observed a contraction of the large intestines. The former I noticed in a subject at the Bellevue Hospital, and in that case the contraction was confined to the arch of the colon. This portion of the intestines is commonly found inflated—very rarely contracted. The liver was unusually pale, and no blood flowed from deep incisions. It could only be expressed from its largest veins. We could not detect a trace of bile in the organ; it was otherwise healthy. The gall bladder contained about an ounce of yellowish bile—apparently two thirds filled. Urinary bladder entirely contracted. The other abdominal viscera natural. In the thorax, the lungs were very natural, and about two thirds exhausted of air. The left cavities of the heart were perfectly empty and natural; the right contained a moderate quantity of blood, and were morbidly flabby. No petechiæ. Serous tissues of the parietes natural.

Dr. Rhineland made a very minute dissection of the brain. It was rather more than usually soft, and its organization was distinct, and exhibited in a very interesting manner by Dr. R. The membranes were natural, and their veins contained less blood than is commonly found in subjects who have died of other diseases. The nerves, in their origin and extension, showed no mark of disease, nor could any be detected in the cerebral substance. A little florid blood exuded on the surface of the medullary portion. The ventricles contained their proper quantity of fluid, and the plexus was natural. The pineal and pituitary glands, and other parts, were found in their natural state. The cerebellum and medulla oblongata were equally free from marks of disease, and the basilar artery was empty.

In this subject, the oil of which I formerly spoke was found in small quantities on the blood, from whatever part examined.

No evidence of decomposition.—Very respectfully and truly yours,
John C. Warren, M.D. Boston.

MARTYN PAINE.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, SEPTEMBER 19, 1832.

POST-MORTEM EXAMINATION OF CHOLERA PATIENTS.

WE have given in previous numbers an account of the examination of the bodies of the first four persons who died of cholera in this city. That of the fifth, we offer below. Should any facts appear, on further inquiries of this nature, of an unusual character, we shall endeavor to record them; but shall otherwise deem it unnecessary to multiply such notices.

Elizabeth Hunt, aged forty-five years, a miserable object, was found near the South Bridge early in the evening of the 7th September, in a privy, by a watchman, and carried to the watch house—thence carried in the morning to the cholera hospital in South District, where she died at ten o'clock, A. M. Before removal to the hospital, she had vomited fluid, described as clear water. During this period she drank water freely—perhaps a gallon. No dejections or nausea after entrance. After removal, collapsed. At nine o'clock, pulseless; hands sublivid; hands and face cold; knees not so. Skin rather damp when cold; scarce any cramp; urgent thirst; complains of burning at epigastrium when questioned.

AUTOPSY.—Spasmodic action could be induced in most parts by friction or a sudden blow. Appearances in brain not very remarkable. *Abdomen.* No peculiar odor; no effusion. Small vessels of the intestines injected. Whole aspect rather red. Stomach large and flabby. Mucous membrane somewhat reddened. Decided redness through great part of small intestines; most marked in jejunum. In stomach, contents 3x. to xij. of thin, opaque, dark, dirty fluid. In small intestines, white creamy fluid, with indistinct flocculi. In cæcum, watery pea-green fluid. That in large intestines, generally, more or less green, with mucus. No feces or ingesta. A lumbricus was found in small intestines. Liver moderately congested. Gall bladder large; contained about 3 iss. of very dark green bile, of usual consistence. Ducts said to be pervious. Spleen small, soft, dark. Kidneys in color, size, consistence, altogether natural. Bladder contained 3 iij. fluid, the character of which was not ascertained. *Thorax.* Lungs crepitated, and presented healthy appearance. Pericardium contained 3 ij. thin bloody fluid. Heart rather large. Both sides contained dark fluid blood, with soft coagula. Some dark blood also in thoracic aorta: less in abdominal. Branches of the vena portæ considerably distended.

To these morbid appearances may be added—*In pocket* a bottle of rum, a pack of cards, and a phial containing flag root steeped in spirits.

PROGRESS OF THE CHOLERA IN BOSTON.

THE cholera is certainly a dangerous subject. It is quite sufficient to hazard an opinion about it on one day, in order to have a fact turn up in-

consistent with it on the next. Recently we expressed a strong hope that cases were to be as they had been, few and far between, and that the alarm arising from the appearance of the disease would prove its greatest evil. This had scarcely gone to press, ere two or three were added to the number of cases; and scarce a day has passed since without a new one. It now appears, that from the 9th to the 16th, a period of eight days, thirteen cases have occurred in this city. Of this number, six happened within an hundred feet of each other, in a location near the western end of Elliot Street, where the land is very low, and the cellars have been for some time past known to be wet and offensive. No other circumstance is known, common to these cases, which serves in any degree to explain their occurrence. All these cases were fatal. Another case occurred on the 10th, in a yard leading from Essex Street, which was noticed as the residence of a Mrs. Ryan who had died on the 7th. The lower part of this yard is a pier built out a short distance over flats, which at low water are uncovered to a great extent, and emit an offensive odor. The individual seized was notoriously intemperate, and had probably been taking an unusual quantity the preceding twenty-four hours. This case too was fatal. Another case occurred in a cellar in Broad Street, in a woman about fifty-five years of age, represented as accustomed to use ardent spirits, but not in excessive quantities. The cellar itself is reported as having been overflowed occasionally at high tides, but being at present in good order. She is reported convalescent. Another case took place in Jefferson Street, in a woman of excellent character and habits, who had been nurse to one of the patients in Elliot Street for three or four hours. This case terminated fatally. The last case was that of a woman residing in Short Street, who is said to have been under the influence of mental depression for some weeks, and to have suffered from diarrhœa for several days. This account—as will be all future ones we shall give—is written early on Monday morning.

Thus far then, at least, it would appear that the cholera has not become the reckless, indiscriminate destroyer of human life; but that for the most part its unfortunate victims have indulged in habits, or been placed in circumstances, such as are found in general to be predisposing causes of disease. That between these circumstances and the occurrence of the disease there existed the relation of cause and effect, we dare not venture to affirm; but such at least is the encouraging view of the case, and therefore we are willing for the present to adopt it. One case seems to have some bearing on the question of contagion; but as the patient referred to participated in the exposure to the same local cause, it is reasonable to admit that she was affected by this in common with the others. In fine, we must live and learn; that is, if we are permitted—for if there ever was a time when the maxim of Hippocrates—*Ars longa vita brevis*—was well exemplified, that time is certainly the present.

INJECTION OF THE SALINE SOLUTION IN CHOLERA.

THE first operation in Boston of injecting the veins with a saline solution, was performed on a patient with cholera, attended by Drs. Homans and Ware, on Friday last. The patient, a female, had been taken ill at five o'clock in the morning, and had sunk very rapidly through the day. At five o'clock in the afternoon she was without pulse, with hands and face cold, the feet having been kept warm by external means, and quite insen-

sible to external objects. Indeed, to all appearance she was near death. About six pints of the saline fluid,* at a temperature varying from 105 to 112 deg., were thrown into a vein in the foot. The time occupied in the operation was about half an hour. The effect on the system was almost immediate. The pulse became sensible; the color of the skin improved; the respiration was easier; the patient aroused, became quite awake to external objects, more so than she had been for many hours, and expressed herself as being much relieved. The change, however, though very remarkable, was not so great as has been described as taking place in some cases. Some vomiting occurred, soon after the injection, and a large quantity of liquid was ejected; a draining also continued from the bowels. The state of prostration gradually returned, and at ten o'clock in the evening all appearance of amendment had vanished. The injection was then repeated, and the same quantity introduced. Effects similar to those before noticed followed, but in a much less striking manner; and at twelve o'clock there seemed little probability that she would continue more than one or two hours. In the morning, however, she was found with a warm moist skin, and a frequent feeble pulse. She had become comatose, and took no more notice while she lived. She continued warm, lost in a considerable measure the dark hue of the skin, and died at two o'clock, P. M., thirty-three hours from the first attack.

This operation was performed in presence of Drs. Warren, Stevenson, and McKean, who concurred in the opinion that without it life would have speedily terminated. Its only result was to prolong life eighteen or twenty hours, which it obviously did. Under some circumstances this alone might become a very important object, in a disease which destroys its victims with such suddenness, particularly since the patient is made more comfortable by it. It is to be remarked that no cramps were complained of during the period of revival. Whether any further benefits are to be derived from this measure, must be determined by future trials.

LECTURES ON THE BRAIN AND ON PHRENOLOGY.

DR. SPURZHEIM has favored the faculty in this city with a few dissections of the brain, an organ to the anatomy and functions of which he has devoted his superior talents. The beauty and skill of his illustrations excited the admiration of all present. However well or ill the learned in the old world have thought of the doctrines of Phrenology, taught by Dr. S.; a wonderful familiarity with the anatomy of the brain, and corresponding skill in its dissection, have been accorded him in every country he has visited. How richly such a meed is merited, we can now bear testimony from personal observation.

We are also happy to state that Dr. Spurzheim has commenced, at the Athenæum, a course of popular lectures on Phrenology. His apparatus is ample, his manner pleasing, and his explanations clear and satisfactory. The course will consist of eighteen lectures.

Effects of Fruit as regards Cholera.—We have seen rather a curious document, drawn up by some of the chief growers of fruit and vegetables in the village around London. It is stated, on the authority of twenty-one

* This solution consists of two drachms of muriate of soda, and two scruples of carbonate of soda, to sixty ounces of water.

such persons, whose names are appended, that up to July the 24th (when it is dated), of 1010 laborers of either sex employed in their gardens, one only was indisposed, and not one had had cholera. Their inference is, that fruit and vegetables are not favorable to the production of that disease; but it does not appear to us that the premises warrant the conclusion. Is it the fact that those laborers eat a larger portion of fruit and vegetables than others? It is notorious with regard to pastry cooks, confectioners, and such persons, that they do not consume more—if so much—of their commodities as others; and certainly persons so situated as the thousand and ten above mentioned, are much less likely than others to commit any excess in regard to the articles in question. It is not against the use, but the abuse, of ‘the kindly fruits of the earth,’ that we protest; and we are quite sure that many cases of cholera have been produced by unripe fruit and raw vegetables (as cucumbers), taken even in moderate quantity; and that great caution is necessary in this respect, notwithstanding the declaration of the growers.—*London Medical Gazette.*

A valuable paper by Professor Hubbard, and some useful remarks on Diet and Regimen, will be presented the reader in our next.

Erratum.—In our last, in the prescription on page 77, the quantity of ‘olive oil’ was omitted. It should have been *Ol. Olivar. 3j. Tr. Acet. Opii. gtt. xc., &c.* The reader is requested to turn back and supply the deficiency with his pen, as he should do in all similar cases.

Whole number of deaths in Boston for the week ending Sept. 15, 36. Males, 20—Females, 16—Still-born, 2.

Of scarlet fever, 6—typhous fever, 1—measles, 1—scrofula, 1—cholera morbus, 2—intemperance, 1—consumption, 2—malignant cholera, 9—suicide, 1—infantile, 3—throat distemper, 1—syphilis, 1—abscess, 1—inflammation on the brain, 1—dysentery, 1—delirium tremens, 1—dropsy, 1—teething, 1—fever, 1.

ADVERTISEMENTS.

HARVARD UNIVERSITY.

MASSACHUSETTS MEDICAL COLLEGE.

THE Medical Lectures in Harvard University will begin in the Medical College, Mason Street, Boston, on the third Wednesday in October, at 9 o'clock, A. M., and be continued four months.

Anatomy and Surgery, Dr. WARREN.

Chemistry, Dr. WEBSTER.

Materia Medica, Dr. BIGELOW.

Midwifery and Medical Jurisprudence, Dr. CHANNING.

Demonstrations in Anatomy, Dr. LEWIS.

Theory and Practice of Physic and Clinical Medicine, Drs. JACKSON and WARE.

At a meeting of the Medical Faculty, held February 17th, 1832, it was

VOTED: That in all future examinations for the Degree of Doctor in Medicine, examinations in Natural Philosophy and in the Latin language shall be conducted in the same manner as the examinations in the other branches required by the Statutes; and that an acquaintance with these branches will be insisted on as requisite for the admission to the degree.

The examination in Latin will be made in Cicero's Select Orations; and in Natural Philosophy, in Grond's Elements of Natural Philosophy.

Boston, July 24, 1832.

WALTER CHANNING,

Dean of the Medical Faculty.

The Massachusetts General Hospital is open to the Medical Class for the practice of Medicine and Surgery.

The amount of Fees will be the same as heretofore.

SURGICAL INSTRUMENTS

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August 22, 1832.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VII.] WEDNESDAY, SEPTEMBER 26, 1832. [NO. 7.

PARACENTESIS OF THE ABDOMEN.

On Paracentesis of the Abdomen. By THOMAS HUBBARD, M.D.,
Professor of Surgery in the Medical Institution of Yale College.

[Communicated for the Boston Medical and Surgical Journal.]

THE operation of Paracentesis of the Abdomen is not in itself dangerous when properly performed, and in such cases only as require it. The direction usually given by medical writers, is, to perform it as a dernier resort; and very little encouragement is given, that anything more than temporary relief can be obtained by the performance of it. The practice has usually been to delay it till the patient is almost in *articulo mortis*; and it is not strange that, instead of relief in such circumstances, death usually follows its performance.

A paper on early tapping in dropsies, by Dr. John Fothergill, was published in the London Medical Observations and Inquiries,* in which some very good remarks are made on this subject. Dr. F. states, that whenever he found a case which resisted the remedies he had prescribed, and the accumulation had become considerable, he had advised the performance of the operation. After the fluid had been evacuated by paracentesis, he remarked, the usual remedies had operated more favorably, and the cure of such patients had not unfrequently followed.

I am inclined, however, to think that his remarks, and some of a similar import that may have been made by others, have had little if any effect on the practice most commonly pursued in such cases. The operation, in fact, has almost uniformly been delayed till very little advantage has arisen from its performance; and in some instances it has been thought to have accelerated the death of the patient. Indeed, in cases of great exhaustion from long suffering, the sudden removal of the distension may have had this effect. I cannot say, however, that I have ever seen this effect from paracentesis; though I have in some instances operated, at the urgent solicitation of the suffering patients, when I could expect nothing but a mere temporary relief. Patients, in fact, have suffered little from the performance of this operation.

* See London Medical Observations and Inquiries, Vol. IV. page 114. London, 1772.

I would not be understood to recommend the performance of this operation in every case of abdominal dropsy ; certainly not till appropriate remedies had previously been used for the cure of the patient. It is not my purpose to enter into the pathology and general treatment of dropsy. With respect to the former, it is very obscure. When it is said that accumulations of serous fluid take place, when the effusion into any part is greater than the absorbents of the part can take up, we express a fact only, without any reasons why such circumstances should take place.

The treatment of dropsy is not very well settled, if we may judge from the various and very different modes adopted by different physicians who have written on this subject. With respect to the effects that are to be expected from the use of remedies, much depends upon the causes of the disease, the situation of the effused fluid, and various other circumstances of the case. We should be induced to persevere in the use of general remedies much longer in some cases than in others.

When the accumulation of fluid in abdominal dropsy follows a fever, or a sub-acute inflammation of the peritoneum, the prospect of success from the use of general remedies is much greater than when it arises from chronic disease of any of the abdominal or pelvic viscera ; and, according to my experience, there is a greater chance of removing the fluid by such remedies, when it is contained in the peritoneal sac, than when it is enclosed in cysts. Indeed, it is a question with me, whether the fluid in encysted abdominal dropsy can be removed except by paracentesis.

I am aware that it is asserted by some physicians, that they have cured, by general remedies, encysted abdominal dropsy. I will not deny this ; but I have never known such cures to have been effected. That the fluid in some cases of that kind (in ovarian dropsy, for instance) has, after a certain period, ceased to accumulate, I know very well, having met with such cases. Persons so affected are liable, however, to an increase of the quantity accumulated in such cases, from various circumstances which may take place.

Whenever I have been called to prescribe in a case of abdominal dropsy, and the patient has considerable vigor, if the quantity accumulated is not sufficiently large to endanger life or create much distress, I usually prescribe such remedies as may seem appropriate in the case. After a proper trial of remedies, and if, at the same time, the accumulation increases ; or if the quantity of it is so great as to create inconvenience to the patient from distension, demanding a constant use of evacuant medicines to keep the patient in *statu quo*,* I advise paracentesis to be performed without delay ; and if the abdomen becomes afterwards distended, notwithstanding the use of proper remedies, I repeat the tapping.

It is well known, when the distension is very great, that many medicines will not operate favorably for the cure of dropsy. Sometimes, when the abdominal distension is great, no diuretics will increase the quantity of urine, the secretion of it having become almost entirely suspended : yet, as soon as the fluid has been drawn off by tapping, the quantity of

* I have known drastic cathartics almost daily given in some cases of abdominal dropsy, to prevent the distress arising from excessive distension, and without any permanent benefit—the disease, on the whole, increasing. Paracentesis is preferable to such practice.

the urinary secretion will be increased, even without the use of remedies, and medicines will operate favorably which previously had no effect. I will state a case.

A colored young woman had every symptom of hydrothorax and ascites. The effusion in the thorax was removed by the use of remedies ; but that in the abdomen went on increasing, and when it arrived to a certain stage, anasarca of the feet and legs followed. As medicines appeared to have no good effect, and the accumulation went on increasing ; and as she suffered much from abdominal distension, she was tapped, and upwards of a gallon of fluid was discharged by the operation. Internal remedies were continued ; and as the feet and legs remained swollen, the attending physician scarified the feet—on one of which, erysipelatous inflammation afterwards took place, followed by partial gangrene. A slough of skin and cellular membrane was cast off from the top of the foot, larger than a crown piece. The patient, however, recovered and lived a number of years, but never had any return of dropsy. The fluid in this case was contained in the peritoneal sac, and the disease was of an acute kind. The rapidity of the accumulation, though the quantity was not very great, produced distress from distension.

Encysted abdominal dropsy I have known to have been cured by repeated tapping, without the use of any other remedy—a case of which I will relate. A woman, from forty to forty-five years of age, became affected with abdominal dropsy. Many medicines were administered by various physicians. As none of them had given her any relief, and as she suffered much by distension, I was called upon to tap her. This operation I performed in the usual place, in the linea alba, about two inches below the umbilicus. About two quarts of fluid issued out, and no more could be obtained from that orifice ; but as other parts of the abdomen were yet distended, and fluctuation could be discovered in several situations, I tapped in succession six different cysts. One of these cysts extended downwards between the rectum and vagina, investing the internal membrane of the latter, which appeared dry and scaly. I drew three pints of fluid from that sac. From all the cysts I drew at that time about twelve quarts of fluid, and the color and consistence of each cyst differed from the others. In one cyst, for instance, the fluid was thin and transparent like water, with very little viscosity ; from another, the fluid looked like beer ; and from a third, like whey, &c.

As this woman had become tired of swallowing medicines, and none had ever appeared to have done her any service ; and as I thought that they could do her no service, I did not recommend any for her. She took none. She was very ill at the time of the operation ; but soon so far recovered that she was able to do common household work in her husband's family, and he was a farmer. She even wove cloth in her loom, weaving being a very common employment of farmers' wives at that time in the place where she resided.

The fluid, however, re-accumulated ; and though she had received so much benefit from paracentesis, she *stoutly* resolved never to submit to the performance of it again. To this resolution she was prompted and *encouraged* by her *very good neighbors*. She suffered so much at length, however, that she could not abide by her determination. In about six

months after the first operations, I was again called upon to operate. She was at that time excessively distended; she could not lie down; her breathing was short and laborious, with great thirst, dry tongue, &c. In short, she appeared almost in a dying state. I immediately tapped her in six different places, by which the distension was partly, though not entirely removed. I thought, however, that I would adjourn any farther operations for that time; as I supposed that the cysts, not yet emptied, would probably appear more prominent in a few days, and that she would also soon be more comfortable in consequence of the operations.

Accordingly, by appointment, I saw her again in ten days afterwards. The cysts that had not been tapped appeared (as I had before suggested) more prominent; and she was also pretty comfortable, and was at that time willing to submit to further operations. I tapped six cysts more, and drew off a considerable quantity of fluid. She then promised that, if further operations should become necessary, she would be tapped again when moderately distended. A few months after the last-mentioned operations, she was again tapped in four or five different places, many of the former cysts having become obliterated. From this period no more dropsical affections ever took place. I saw her about twenty years afterwards, an healthy old woman, and never heard of her having any return of dropsy.

I have seen some abdominal dropsies that were attended with tumors, some of which were apparent before the fluid had been drawn off; and in other cases, the tumors were only to be discovered after its evacuation. These tumors, most of them, have been organized bodies; and in that case, in some instances, are enlargements of some of the viscera. In other cases the tumors are of preternatural formation.

The existence of such tumors does not forbid paracentesis, when the accumulation of fluid demands it, if the fluid can be evacuated without wounding the tumor. When there is a considerable quantity of fluid, we can usually tap where the fluctuation is most apparent, without doing any injury. By pressure at the point usually selected for the puncture, with the ends of the fingers, even where there is a fluctuation, we can generally discover whether there is any tumor at that point within reach of the instrument to be employed in the operation. The prospect of ultimate success, however, is very much lessened by the existence of tumors in any part of the abdomen.

Sometimes abdominal dropsy is attended with enlargement and disease of the liver. I once witnessed a case of this kind, the circumstances of which are peculiar. I was called upon to tap a woman who, about three weeks before, had been delivered of a child, which was then living. I drew from her abdomen thirty-two quarts of fluid, weighing seventy pounds. No fainting or other unpleasant symptom followed the operation. The re-accumulation of the fluid was, however, so rapid, that in twenty-three days afterwards I drew from her twenty-three quarts more. The woman, in this interval, had abstained almost wholly from drink. This she had done without my advice, or that of any other medical man. She was afterwards tapped once more before she died. On dissection, the liver (which we had discovered previously to have been very much enlarged, and particularly after tapping) was found to be in a scirrhus

state, weighing thirteen pounds, though the woman was of moderate size. There were the remains of several ruptured cysts, originating from the surface of the liver, though none were whole at the time of the examination.

I have, in some instances, been obliged to tap in places different from that usually chosen, on account of the occupancy of that part by tumors. I once saw a case, in which abdominal dropsy was accompanied by a tumor. The fluid was drawn off some time before death. On examination, the tumor was a species of fungus hæmatodes, and weighed eighteen pounds. She professed herself very much relieved by the evacuation of the fluid, notwithstanding.

Abdominal tumors accompanying dropsy are not always organized, as I have had occasion to know. The following statement gives the principal facts in the case. A woman, aged thirty-three years, was affected with an illness after parturition, of the precise nature of which I was not informed. Some months afterwards, I saw her. A hard, indolent tumor then occupied the lower part of the abdomen, rather flattened in its external surface, and there was no fluctuation of fluid at the time. Dropsy of the abdomen followed, for which various remedies were prescribed by different physicians without any effect. I tapped the abdomen, and drew off thirteen quarts of fluid, which was very viscid, and in which were many small pieces of coagulated lymph, of a yellow color. These lumps obstructed the canula, and I was obliged to procure a larger instrument for future operations, which, as we shall find, became necessary.

The abdominal tumor became very distinct after the abstraction of the fluid. She became distended again as before, and her anxiety for cure caused many medical gentlemen to be consulted; but no benefit was experienced from the administration of medicines in the case. At the suggestion of an elderly physician, she abstained almost wholly from drink in one of the intervals between the operations. This measure, however, did not lessen the rapidity of the accumulation of the dropsical effusion. Her general health was good, except when deranged temporarily by the exhibition of powerful medicines, which, at various times, were employed. She attended to her household concerns for a greater part of the time between the different operations.

She was tapped eighteen times in two years, and the day before her death was in comfortable health. She was walking on a descending piece of ground, and fell forward, her abdomen first striking the ground. She was at that time moderately distended, and expected to be tapped again in about a week. When she fell, she felt, as she expressed it, something give way internally, like tearing, and immediately became extremely distressed. I saw her in a few hours afterwards. She was then cold; her pulse almost imperceptible, with great distress in the epigastric region. Stimulants and opium were ineffectually tried; friction with external heat was applied; but she died in twenty hours after the accident. On examination, a few hours after death, we found a ragged hole in a part of the cyst, in which the fluid was lodged, and in a place where it did not adhere to the peritoneum. The escape of the fluid by this orifice into the peritoneal sac, was the only reason which we could assign for her death. The extreme faintness before her death made me suspect

internal hæmorrhage ; but we found no extravasated blood. The cyst originated on one of the ovaria, and adhered to the anterior and lateral parts of the peritoneum. The tumor was a large lump of yellow coagulated lymph, which, with a portion of the cyst removed with it, weighed eight pounds.

I have known death to take place very suddenly from the omission of paracentesis, when it had become necessary. A woman, sixty years of age, had been affected with encysted dropsy of the abdomen. The cyst was small, and its size nearly stationary for twenty years. When in that state, it did not incommode her much. At length, however, she was affected with what was called a fever. Whether the fever was caused by inflammation of the cyst, or not, I do not know, as I did not then attend her. I think it very probable that the fever arose from this cause, as the quantity of the fluid in the cyst increased very fast immediately after this illness. A few months after this *fever*, I was desired to attend for the purpose of performing paracentesis of the abdomen. The quantity discharged was very considerable, and very thick. She was completely relieved by the operation. The fluid, however, re-accumulated, and the operation became again necessary in a few months.

Though she was very comfortable after these operations, yet she resolved, after the second, that she would never be tapped again. However, after enduring great distress, she again sent for me to perform the operation. I was unfortunately not at home when I was sent for. The next day I set out to visit her ; but, as her residence was fifteen miles from mine, I met a messenger on the way, sent to inform me that she was dead. He informed me that, before her death, she had been more distended than before either of the other operations, and that for several days she had been much distressed. No examination of the body was made.

The rules which I would propose relative to the operation of paracentesis of the abdomen, are—Not to operate if the distension is not so considerable as to give much uneasiness ; and if, at the same time, the quantity of the effused fluid is not increasing. My reasons are, that, by taking off the compression in such a case, the accumulation might increase rapidly, and the operation again become necessary. I will give a case in which the tumefaction did not increase, after having arrived at a certain quantity.

A colored young woman, who was at service in a farmer's family, had been affected with abdominal dropsy for several years ; but it had not increased for a year or two before I saw her, and she suffered no inconvenience, except from the size of the abdomen. The abdomen was about the size of a woman at the full term of pregnancy, and probably contained about six quarts of fluid, and which was, probably, contained in a cyst. There were no signs of a dropsical diathesis in her case ; in fact, her health seemed to be good. When her abdomen first became enlarged, she was taken in hand by the local authorities of the place where she resided, and pregnancy charged upon her. This she stoutly denied, and asserted her innocence, of which there was no reason to doubt.

I did not advise the operation in this case, and she lived for several

years in the part of the country where I resided. I had frequent opportunities of seeing her, and she informed me as often that the enlargement of the abdomen did not increase. At length she married and removed from the place, and I never heard from her afterwards.

On the contrary, I would advise the operation—

1st. In any case in which the fluid cannot be removed by the use of other remedies, and in which the effusion increases in quantity, interrupting the healthy functions of the system; and

2dly. I would, if consulted in season, advise to the performance of the operation before the patient has become excessively distended, and also before the patient shall have become very much reduced in strength.

The constitutional irritation, arising from great distension of the abdomen, is not confined to pain and other deranged sensations in the region of the abdomen. When it is very much distended, a pain in one or both sides is frequently felt, which seems to arise from the pressure of fluid which presses the anterior ends of the short ribs outward. When this pain happens to be felt most severely in the right side, a diseased state of the liver is frequently suspected. This pain, however, immediately ceases as soon as the fluid is discharged by paracentesis, and in many such cases no enlargement of the liver appears; and as the functions of it also seem to be well performed afterwards, there is no reason to suspect disease of structure, or diseased functions of the liver, as a cause of dropsy.

The functions of the nervous system become deranged also from excessive distension of the abdomen, long continued. I will state a case which I witnessed. A young woman was affected with abdominal dropsy, which began soon after a fever. The fluid accumulated very slowly, and she was several times relieved by the use of the various medicines administered. At length she became occasionally affected with vertigo and loss of recollection, followed by a degree of numbness that was very disagreeable, and, in fact, alarming to herself and friends. The operation of paracentesis was at length resolved on and performed, by which thirty pounds of fluid were discharged. About an hour after the operation, though nothing particular took place at the time of the operation, she was affected with similar feelings, and also great distress in the epigastric region. By the use of opium, alcohol, and external warmth and friction, she was restored in two or three hours.

I heard from this patient a year after this operation. She was in good health, and there was no return of the abdominal distension. In fact, soon after the operation, she had resumed and had continued her work in a cotton mill. This last information was two or three years ago; and since that time I have not heard from her. This is the only case in which I have known such symptoms to follow this operation, which I have performed many times.

In the performance of paracentesis of the abdomen, I use a flat trochar, with a lancet point. Previous to its performance, I pin a broad linen or cotton bandage around the abdomen pretty tight. I cut a hole in this bandage as large as the palm of the hand, and so apply the bandage as that the hole should leave uncovered the place where I design to make the puncture. While the fluid is discharging, I keep one or more assist-

ants employed in pinning the bandage tighter as the fluid is discharged. I endeavor to discharge every drop of fluid that can be got out by change of posture, and compressing the different parts of the abdomen. When this is done, I withdraw the canula, apply a small dossil of lint to the orifice, and over it an adhesive plaster. I then introduce a compress under the edge of the hole in the bandage all around, and pin the edges of the hole in the bandage to the compress. The dressings are then complete, and the patient need not be afterwards disturbed to adjust anything—a matter of some importance to a weak patient. I have known bad consequences to arise where the opening, made by the trochar, did not heal, which it is not always disposed to do in very old people, and in constitutions worn down by disease.

On one occasion I tapped an old gentleman, who was very feeble, and in whose case the operation had been too long delayed. Nothing particular, however, occurred during or immediately after the operation; in fact, I left him, as I thought, very comfortable. I lived fifteen or twenty miles from him, and left him to the care of his attending physician. The orifice re-opened in a day or two after the operation. The physician, though a *shrewd*, was not however a *learned* man, and thought it an excellent thing that the fluid should discharge from the orifice as fast as it was effused into the abdomen. The consequence of this, however, was peritoneal inflammation and death in a few days. This is the only instance of such an event in my own practice, though I have been informed of several similar ones.

In all my operations from that time, before I left my patient after the performance of paracentesis, I have been particular to request to be informed if the orifice re-opened; and if the discharge could not be stopped by re-dressing, which sometimes may be done, that I might see the patient; or, if the distance from my residence was too great, I have stated my plan to the attending physician. My mode is, to pass a cambric needle through the edges of the orifice, and with waxed silk to make a twisted suture, and to keep in the needle till the orifice should heal. If kept in four or five days, the healing is accomplished. I once thought I saved the life of a lady, seventy-four years old, by this mode. About thirty-six hours after the operation the orifice opened, and a serous discharge took place. The attendants re-dressed the orifice without effect. She became faint, and there was much abdominal distress. I was called, and used the twisted suture. Soon after this, all uneasiness subsided, and no bad consequences followed the operation.

Medical Institution of Yale College, August 22, 1832.

DIET AND REGIMEN.

[Communicated for the Boston Medical and Surgical Journal.]

SOME thirty or forty years since, when commercial expeditions to the remotest parts of the earth were much less frequent than at the present day, a ship returned after having made a very fortunate voyage into the Pacific. The master invited the owners, with his and their friends, to visit him on board. They partook very liberally of such refreshments as

he offered them ; and among other delicacies, of some excellent smoked or dried meat, which was much relished and admired. When the repast was over, the company were informed that the meat was horseflesh, which the captain had procured of the Araucanian Indians. This information sickened the whole party ; and in a little time, vomiting, whether from the squeamishness of individuals, or from sympathy, became general, and soon put an end to all further conviviality and hilarity.

I think it is Van Swieten who tells us, that he was once riding in the heat of summer on a particular road, when he was instantly seized with a violent vomiting, which was caused by the oppressive stench arising from the sudden bursting of the carcass of a dead animal that lay by the way side. He adds, that this sickness made such an impression on his imagination, and the association of ideas was so strong, as ever after to produce nausea when he passed by the place, even when he traveled the road in the dead of winter.

These instances are mentioned as specimens of the power of the imagination over the stomach, and of the commanding influence which the mind possesses upon the process of digestion, while the body is in perfect health. It is impossible to fix the attention upon the stomach, and the various articles of the food which we eat—measuring the quantity, examining the quality, and discussing the salubrity of every mouthful that is taken—without greatly disturbing the process of digestion. Green corn, the most palatable of all the native dishes of New England, sits as heavy as lead ; cucumbers and pickles become as indigestible as flints ; apples, peaches, and other fruits of the season, are soon as acid as vinegar ; and the pulp of the most delicious watermelon is as nauseating as Araucanian horseflesh. Our garden vegetables are looked upon with an eye as suspicious as we would view thorn apple, hemlock, or the deadly nightshade. Tarts, sweetmeats, cake, and every delicacy, can be no longer borne ; and even the plain apple pie, which has been our favorite from infancy, is banished from the table. Tea disturbs the nerves, coffee is too stimulating, and chocolate is indigestible.

In nine instances in ten, and more probably ninety-nine in a hundred, the mischief which follows the temperate, prudent use of these articles, arises from the disturbance which the imagination gives the stomach, rather than from their being originally improper for food. The influence of the mind upon the stomach, and more particularly so when it is in a state of apprehension and fear, checks the secretion of gastric juice, and prevents a sufficient quantity of it being furnished to perform the process of digestion. The direction to the disciples to eat whatever was set before them, as well as the command to ask no questions for conscience's sake, was not only an injunction of religion, but a dictate of philosophy ; and it is at this day as obligatory upon every person in health, and wishing to remain in health, as it was in the primitive age of the Gospel. It is difficult to conceive of the great and irreparable injury, which has been done of late years, by diffusing minute rules concerning diet and regimen, among people in ordinary health. Not one stomach in a hundred will bear to be constantly watched, questioned, and irritated by the mind. The true way to retain a good stomach is, in a sense, to forget that such an organ is attached to the body.

Peculiar states of health, as well as everything else in this world, go by fashion. At one time everybody is bilious ; at another, nervous. Sometimes all must be feverish, and taking cream of tartar ; at others, every one is debilitated, and taking iron, tincture of bark, and bitters. At present, dyspepsia is the order of the day, and everything is to be prevented and cured by abstinence and starvation. Books upon this subject are circulated among the learned, and the newspapers are constantly enforcing it upon the people at large. The professors of our colleges and schools, many of them, as regularly and as gravely lecture their pupils upon diet and regimen, as upon their systematic studies ; and if the professor chances to be in fashion, all the pupils of the institution must have the dyspepsia also. A kind of monomania pervades the whole community upon this point. The question now is, not what we shall eat or drink, but what we shall *not* eat or drink ; and every morsel or draught is as scrupulously examined as if it contained a latent poison.

Such being the state of things, a squeamishness and delicacy is soon acquired, and the stomach is readily brought into a factitious state, which prevents its digesting properly most of the common articles of food. Nothing but the diet of invalids can be borne ; and even this, to sit easy, must be diminished in quantity, till the strength is impaired and we all become valetudinarians in reality.

When an epidemic very generally prevails in a particular, limited locality, it sometimes happens that no person enjoys sound health. In such cases, certain cautions may not only be proper, but necessary. But if this locality is a hundred miles from us, and our own vicinity remains salubrious, it is no argument that we should adopt a valetudinarian regimen. It is not necessary for our crew to be put on short allowance, because another ship is in want of provision. The fruits and produce of the season were designed for temperate use and rational enjoyment. So far from its being true, that they are crude and imperfect the present year, in the vicinity of the residence of the writer the fact is directly the reverse. With the exception that the season is perhaps a few days later than usual, there is an ample supply of all of our customary productions, in all the perfection common to the climate. They are not placed by Providence before a sound man to tantalize his appetite, or to tempt him to destroy his health.

I have no doubt that much evil has arisen from adopting a cholera regimen in places where there was no trace of the disease, and that by this means the stomach has become enfeebled, and a predisposition formed for the epidemic. Every idle rumor has been circulated, to work upon a credulous public. In my view, it is the height of folly and credulity to imagine that the eating of an apple, a peach, or a slice of watermelon, in perfection, can ever produce such a disease as malignant cholera in a healthy person, or essentially affect him either as a predisposing or exciting cause. No ; where this terrible disease does occur, the *cause* lies deeper. The whortleberries and milk could not, I apprehend, have ever been the *occasion* of the calamity of the clergyman's family at Harl m ; or if they were, the health of the family must have been previously impaired.

These remarks concerning the action of the mind of a person in health,

upon the digestive or assimilating powers of the stomach, apply with augmented force when disease, or even a predisposition to a prevailing complaint, is present. Now a little imagination may render the simplest article of food indigestible, or make it actually noxious. Every one knows, that suspicion or fear has an instant effect on the stomach; and when this suspicion is directed to the stomach itself, its influence is augmented in a geometrical ratio. The digestive organs for a time are paralyzed, and the food is no longer subject to animal laws, but is changed upon chemical principles. The effects of medicine, in like manner, are essentially counteracted, or materially assisted, according to the state of the mind, and its direction to the stomach, and the supposed good or ill action of the remedy.

On the whole, after a pretty attentive consideration of the subject, I am strongly inclined to believe that the popular treatises upon diet and regimen, the habitual lecturing of students upon their health, and the newspaper recommendations and proscriptions of food and drink, have been the cause of ten cases of dyspepsia, in the place of one which they have prevented or removed. It is said that no susceptible person can fix his attention upon his heart, for five minutes at a time, without producing pain or distress, or varying the action of that vital organ. The same is probably the fact with the stomach, and peculiarly so when an epidemic is prevailing, which has one of its prominent seats in the organs of digestion. A regular habit of using the bounties of Providence with temperance and moderation, is about all that can ever be enforced upon the public to advantage. All popular directions, besides the rules of common sense and common prudence, are liable to be misunderstood and perverted, and be carried to extremes which make them worse than useless—increasing the very evils which they were benevolently, but injudiciously, designed to diminish.

AMICUS.

A CASE NOT REPORTED AS CHOLERA.

BY E. G. DAVIS, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

ON Friday, September 7th, at seven o'clock, P. M., I visited, with my friend Dr. J. J., a married woman, S. S., about twenty years of age, living in a narrow alley leading out of Essex Street. I understood that she was very near her period of confinement; that she had had dysentery twice during the last week, which had been controlled by treatment; and that in consequence of gross imprudence in diet the evening previous, she had been attacked with vomiting and purging in the night. We found her lying in a filthy bed, and half covered with dirty, wet clothing; her countenance rather sunken, indicating some distress; her skin universally moist, the face being bedewed with perspiration; her trunk cool, and extremities cold; the arms and legs nearly as much so as in death; her breath cool; her tongue becoming so almost immediately on being protruded—dry, not coated. Her pulse was about 150, and very small. Her thirst was excessive, and her calls for water peculiarly urgent. She

complained of no pain, but had a burning sensation at epigastrium. She had had no vomiting or purging, by report, for some hours. Spasms were almost constantly present during the whole of the visit, which lasted an hour. They affected principally the muscles of the calves, the flexors of the toes and those of the fingers. The fore fingers were repeatedly drawn asunder from the rest in a lateral direction. She did not appear to suffer from the cramp, but begged continually to have her extremities rubbed. Her voice was not affected, and her mind continued unimpaired. She lay for some minutes at a time quite still, as if asleep. Her fingers, when unaffected by spasm, were semi-flexed, furrowed with longitudinal wrinkles, and having much the appearance as if they had been soaked in warm water for three or four hours. The state of the bed produced a suspicion that the liquor amnii had been discharged. On examination, this was ascertained not to be the fact: the os uteri was found somewhat dilated, and the head of the fœtus was perceived through the membranes. She became worse during the visit, although much exertion was made to produce external heat, and to restore the circulation.

At nine o'clock, seen again. The skin of the face, chest, and extremities, are bathed in sweat, with large drops exuding from every pore, and deathly cold. The countenance is ghastly, and intensely anxious. The respiration is laborious, sometimes gasping. The *alæ nasi* are expanded in breathing; the eyes are surrounded with a livid areola; the voice has become a little husky; the mind continues clear; the heat in stomach has left her; the spasms have nearly ceased. No vomiting or purging. Just before ten o'clock she became more restless; lifted herself in bed; threw about her arms; said she was dying; threw her head over the bed; vomited without effort twice or three times; then fell back and expired.

Examination of the body was not permitted.

Boston, September, 1832.

HEMOPTYSIS.

A Case of Hæmoptysis. By H. A. BARROWS, M.D., Leeds, Maine.

[Communicated for the Boston Medical and Surgical Journal.]

JANUARY 17th, 1832.—S. H—d, aged fourteen, sanguine temperament, light hair and eyes, with a fair, delicate skin, and other indications of scrofulous habit; predisposed to pulmonary affections by hereditary constitution; is one of twelve children, of whom half are now dead, and all but one of tubercular phthisis. All died young, but not so young as the present subject.

This patient has suffered hemorrhage from the lungs for ten weeks, generally in moderate quantities two or three times each week; has a slight cough, and a little uneasiness in the right lung; expression of countenance lively and quite natural, though somewhat emaciated; pulse quick and sharp, but never full or hard; breathing quite natural; appetite tolerable, digestion good, and rests tolerably well.

Treatment.—Commenced with Dig. Pur. in powder iss. gr. twice a day in honey. Ac. Plumbi, combined with opium, to be given once an hour at the occurrence of hemorrhage. Emp. Pix. Burg. to chest and shoulders; dry cupping, and milk diet.

26th.—No hemorrhage since the 17th, and appearances favorable. Continue the Digitalis, and cupping of lower extremities. Discontinue the plaisters of Pix. Burg., and substitute the vesicating plaister over the affected lung. Prescribed the Nitric Muriatric Acid Bath to chest and superior extremities every evening, just before going to bed.

31st.—Patient doing well. No hæmoptysis, and no unfavorable symptom. Continue as before, save the blister, which is allowed to heal up. Ordered the Ac. Plumb. with opium to be taken regularly at ten and four.

Feb. 6.—Has had hemorrhage since my last visit. Ordered the Saturated Tinct. Dig. in doses of 25 gtt. at seven, A. M., and twelve; the lead to be taken at four and eight, P. M. Repeat the cupping and Nit. Mur. Acid Bath as before.

8th.—The patient commenced taking Mur. Soda in doses of a tablespoonful every second morning.

14th.—No hemorrhage since the evening of the 6th. Had taken the salt faithfully, and without inconvenience after the first dose, which produced nausea. Continue the Digitalis, and discontinue the Ac. Plumb.

22d.—No return of hæmoptysis. Takes the Mur. Soda without difficulty. Continue the cupping, Nit. Mur. Acid Bath, and, internally, the Sat. Tinct. Dig. twice a day. Looks well, eats well, digests well, cough very trifling, expectoration free.

March 9th.—Patient worse, having taken cold. Cough increased, with considerable expectoration at night, but dry in the morning; his appetite has failed; has frequent nausea and spontaneous vomiting. His spirits depressed, and countenance anxious; breathing more difficult, but no hemorrhage. Prescribed a tonic infusion of Gentian, Cont. Aurant. and Bac. Junip. Digitalis to be continued.

16th.—No better. Has discontinued the Mur. Soda on account of excessive nausea. Continues the Dig. without inconvenience. Cough quite troublesome, with saltish taste in the mouth, but no hemorrhage; appetite poor; rest somewhat disturbed.

23d.—Patient much better. Cough suppressed; no appearance or symptoms of renewed hemorrhage; appetite much improved; rests well; pulse more natural. The Tinct. Dig. begins to produce some constriction of the stomach. Lessen the dose, and, if the constriction still remain, omit it.

April 2d.—Patient still better; perfectly free from pain; cough very trifling; no appearance of further hemorrhage. Scarified and cupped the lower extremities; and discontinued all medicines except the Mur. Soda.

4th.—Patient afflicted with severe pain in the eyes; rest disturbed in consequence. Scarified and cupped him upon the back of the neck, and directed stimulating cathartics.

6th.—The eyes relieved, and patient comfortable.

10th.—The patient has been drowsy and comatose for two or three days; free from pain, but pulse very slow and weak; has no appetite,

and is discouraged. Ordered a tonic mixture of Myrrh 3i., Ol. Sassafras ʒi., Pulv. Ip. ʒi., Diluted Alcohol oz. 8., to begin with small doses, often repeated. Also a powder of Carb. Ferri with Pulv. Dov. at night. Extensive and thorough friction of the surface with coarse flannel or brush. Animal food for diet, and highly seasoned.

11th.—Somewhat better. Circulation more active; less lethargy, and better appetite. Continue as before, only increase the dose. Carb. Mag. for acidity of primæ viæ.

14th.—Worse again. The tonic plan does not take effect; it seems to avail nothing; the patient is comatose; bowels very torpid; is free from pain, save an occasional headache. Perspiration free, breathing easy, and cough very trifling.

16th.—Patient failing fast. Countenance cadaverous; bowels excessively torpid; has taken two cathartics, but no operation. Administer stimulating injections this morning.

18th.—More comfortable. After the injection on the 16th he had a powerful discharge per anum, but none since. No cough, no pain, breathing perfectly natural and easy. A little Madeira wine was given this morning, which produced excitement. Saw him at twelve. Pulse increased in frequency, and quite full; tongue much furred. Ordered another injection of Ol. Ric. Com., and repeat if necessary; also febrifuge Spts. Nit. Dulcis.

21st.—Has failed since the last visit very materially. Still breathes easy, and is free from cough and pain. Hectic flush occasionally upon the cheek.

26th.—Patient died this morning at seven o'clock. He had excessive hemorrhage from the nose during the night.

August 28, 1832.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, SEPTEMBER 26, 1832.

WE would ask the especial attention of the reader to the most excellent remarks of our experienced friend on Diet and Regimen, which we this day offer in our pages. We hope they may be extensively circulated by the newspapers, and impress as they ought the minds of all who peruse them.—To the faculty, more particularly, we commend the practical remarks of Professor Hubbard.

SEQUELÆ OF CHOLERA AT ALBANY.

THE following note from our highly esteemed correspondent, Dr. Bronson, of Albany, was intended merely to afford such information as we have solicited, to enable us to make up a statistical table of the cholera,

as it has prevailed and may prevail in this country. Our thanks are due to Dr. B. for his attention to our wishes. We trust he will excuse us for publishing his letter, since it contains other facts of interest to the profession.

Albany, September 11, 1832.

To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—The cholera commenced in this city on the 2d of July. Two cases occurred on that day, both fatal. From that time up to September 1st, there have been officially reported by our Board of Health—cases of cholera, 1147—deaths from cholera, 401. From September 1st to 8th, there were reported, deaths from cholera, 16. The actual number of cases of the epidemic has been five times the number reported, and probably more; indeed, three fourths of our population have had some degree or form of it. Those cases which were arrested in the beginning by medication, or which were so mild in their nature as not to render confinement within doors necessary, no one thought of reporting. The number of deaths (417) up to September 8th, reported, is much below the actual number. Many have died without ever seeing a physician, and many have been attended by irregular practitioners, whose reports, if made, were not received. The whole number of deaths from cholera, I have no doubt, has been 550, and probably more.

The following facts, I think, show most conclusively that cholera *may* be contagious (in the ordinary acceptation of that word).

Stephen Miller, of Sand Lake (a town twelve miles east from Albany), came to Greenbush, opposite this city, on Sunday, the 5th of August. The cholera was then prevailing in Greenbush. Mr. Miller visited some of his friends who were ill of the disease, and returned home the same day. On Tuesday morning following he was taken down with cholera, and died in the afternoon. On Thursday morning a negro, who worked for Miller, and who had been about him during his illness, sickened in a similar way, and died before night. On the same day the father-in-law and a daughter-in-law of Miller (living in the same house) were attacked. The former died the day following, and the latter recovered. On Sunday night succeeding, a son of Miller, and a boy who lived with him, were taken with the disease; but their cases were mild, and they both recovered. The next day (Monday) a man, who worked for Miller at the time of his sickness and death, and had been with him, but who had fled from fright, was seized with the malady, and died in thirty hours.

Bowel complaints had been somewhat common in Sand Lake before the sickness of Miller, but there had been no case of cholera; nor had there any occurred, besides those above named, from that time to the 15th, the latest period to which my information extends.

These facts, I believe, may be relied on. They were communicated to me by Dr. Elliot, one of the physicians in attendance upon the family of Miller.

The epidemic cholera has now pretty much left us. Now and then a straggling case is to be met with, but it is generally of a mixed breed. The epidemic constitution has evidently again changed. Intestinal complaints are still rife, but they wear new appearances. They are often of a *febrile* character, running along for a week or two, and are sometimes preceded by chills and *fever-pains*, like the diseases of other seasons. The vomiting and purging are only occasional, and rarely terminate in the true 'collapse.' They are sometimes irregularly paroxysmal, show-

ing a mixture of the intermittent type of disease. Some cases of measles are met with, and hooping cough is frequent and severe. They are both apt to be accompanied with troublesome bowel complaints. I have seen the latter run into something very much like epidemic cholera. There would be copious water-gruel-like stools, occasional vomiting, spasms—'collapse'—death.

Yours, &c.

HENRY BRONSON.

CHOLERA IN BOSTON.

THE cholera has again become a barren topic. During the last week, but one unequivocal case of the disease has been reported; and this occurred in an individual of intemperate habits, and who had been suffering with bowel complaints more or less for the preceding fortnight. He was carried to the Northern Hospital, and the experiment of injecting the veins was resorted to with temporary benefit. The case terminated fatally.

It can scarce be doubted, that other cases have occurred, approaching in a greater or less degree to the character of spasmodic cholera, but not being sufficiently decided to make it necessary to consider them as such. Of this kind was the case of a boy in Leman's yard. Another case, which approached very nearly in violence to those reported, occurred on the 19th, but terminated favorably.

We record it with no small satisfaction, that out of the few cases which have occurred, the saline injection has been tried in two. One of these was given in detail in our number for last week. The other was the man Vincent, who was received at the Northern Hospital on the 20th. We understand that in this case the effect of the injection was very decided in restoring the circulation, increasing the temperature of the surface, and augmenting the vital powers generally. These effects were, however, less permanent than in the former case. The patient survived the operation twenty-five hours.

There is one suggestion which has been made in regard to the manner of reporting cases in this disease, which, it seems to us, might be practised upon with no small benefit. It is, to have only those cases officially reported as cholera which terminate fatally. By adopting this measure, no small portion of the alarm and excitement which doubtful cases are calculated to produce, would be prevented. It has, indeed, been said that, by this mode, discredit would be thrown upon the character of physicians. On the contrary, we conceive that if the nature of the plan were previously made public, and it were once understood that fatal cases only were published, the disposition to make the medical profession of a place responsible for the mortality of the disease, would finally and effectually be repressed.

Whole number of deaths in Boston for the week ending Sept. 22, 40. Males, 21—Females, 19.

Of malignant cholera, 3—consumption, 6—cholera morbus, 3—dropsy in the brain, 2—old age, 1—scarlet fever, 1—marasmus, 1—wounds, 1—lung fever, 1—inflammation of the stomach, 1—dysentery, 3—cholera infantum, 2—croup, 3—worms, 2—delirium tremens, 1—abscess on the kidneys, 1—bleeding at the lungs, 1—typhous fever, 1—debility, 1—teething, 1—infantile, 1—intemperance, 1.

NEW WORK ON MINERALOGY AND GEOLOGY.

CLAPP & HULL have in the press—'Familiar Lessons in Mineralogy and Geology, including Domestic Sketches. By the Author of "the Pastime of Learning." In two volumes, 12mo.'

The first volume of this work comprises the subjects of Mineralogy and Conchology, which are illustrated by more than 70 well-executed engravings; together with a Vocabulary of the terms used in those studies and in Geology, and will be published early in the ensuing month.

The work has been examined in manuscript by several gentlemen who are intimately acquainted with the subjects of which it treats, and has received their approbation and confident recommendation. Extracts from their letters to the author will be given in a future advertisement.

THE
BOSTON MEDICAL AND SURGICAL
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VOL. VII.] WEDNESDAY, OCTOBER 3, 1832.

[NO. 8.]

GELSEMINUM NITIDUM OF PURSH.

Notice of some of the Medicinal Powers and Therapeutic Applications of the Gelseminum Nitidum of Pursh. By WILLIAM TULLY, M.D., Professor of Materia Medica and Therapeutics in the Medical Institution of Yale College.

[Communicated for the Boston Medical and Surgical Journal.]

IN Elliott's Sketch of the Botany of South Carolina and Georgia (published at Charleston, S. C. 1821) it is said, on the authority of the late James McBride, M.D., that the root, flowers, etc. of this shrub are narcotic. It is added, that the effluvia of the flowers sometimes induce stupor, and that a spirituous tincture of the root has been used successfully in rheumatism. From this statement I was induced, many years ago, to obtain specimens of this article, and to make a course of observations upon it, which resulted in full conviction that it was a valuable medicinal agent, and might be an important acquisition to the materia medica of the United States. Within the last half dozen years, I have again been repeatedly supplied with parcels of this plant by Isaac Branch, M.D., of Abbeville, S. C.; and I have, in consequence, resumed the use of it with much satisfaction. As it is an article but little if at all known as a medicine in the Northern States, it is believed that some account of it, even though in many respects imperfect, may possibly be a matter of interest to some of the readers of the Boston Medical and Surgical Journal.

This plant is denominated *Gelseminum nitidum* by Pursh; *Gelseminum sempervirens* by Elliott; *Gelseminum*, s. *Jasminum luteum*, etc. by Catesby; *Gelseminum nitidum* by Michaux; *Bignonia sempervirens* by Walter; and *Syringa volubilis*, etc. by Plukanet. As I have no botanical descriptive work at hand, the above synonymy is given from mere recollection; but it is confidently believed to be correct. I consider Pursh's denomination as possessing a decided preference over all the rest, for reasons which perhaps might not interest my readers generally. The popular denominations of this article are *Yellow Jessamine*, and *Carolina Jessamine*. The former seems to me to be a highly exceptionable name, from the circumstance that a species of true *Jasminum*, almost univer-

sally called *Yellow Jessamine*, is very generally cultivated in various parts of our country ; and the latter is but little, if any better, since our plant is by no means a *Jasminum*, but a genus abundantly distinct. I believe that the *Gelsemium* is arranged by Jussieu in his Natural Order *Apo-cynæ* ; but whether subsequent botanists have given it a new location, I do not now recollect, and just at present I have no means at hand of ascertaining. As Linnæus associated it with his genus *Bignonia*, it must thereby have fallen into his Natural Order *Personatæ*. I believe it is indigenous in the United States, from Virginia to Florida, and from the Atlantic to the Mississippi ; but it is said to be the most abundant near the sea coast, and on the banks of rivers. It is not unfrequently cultivated as an ornamental climbing shrub in the State of Connecticut ; but, unless I misremember, its foliage is deciduous, and not sempervirent, in that climate. The genus *Gelsemium*, I think, comprises only a single species.

The part of this plant which I have employed, has been the *root* exclusively ; and my sole preparation has been the alcoholic tincture, made in the proportions of four Troy ounces in coarse powder, to a pint of officinal alcohol, i. e. alcohol of the specific gravity of .835. It is true, I have not investigated whether officinal alcohol is a better menstruum for its active principles than diluted alcohol, wine, or even water ; but having made my first preparation in this manner, and finding it extremely active and uniform in its powers, and capable of being kept for a long time without any perceptible deterioration, I have never made trial of any other.

The first perceptible operative effects of the *Gelsemium* are the abatement of morbid irritability and irritation, and irritative actions generally, in all parts of the system ; as irritative frequency and hardness of the pulse, irritative cough, irritative wakefulness, irritative pain, and even some fugitive varieties of mere irritative inflammation, especially of the arthritic (i. e. the rheumatic or podagric) sort. If a quantity larger than is barely necessary to produce the above operation is administered, it produces languor and lassitude, a disposition to yawn very frequently, and indisposition for motion or exertion. A still more liberal use of it causes vertigo ; imperfect vision ; great epigastric uneasiness ; nausea and retching, especially on motion ; extremely weak, small, and thread-like pulse, and often also a very unfrequent one ; a pale and haggard expression of the countenance ; coldness of the extremities, and at last of the whole body ; and ultimately even stupor, coma, and death.

From repeated and careful observations, even of the very first operation of this article, I am well satisfied that it never produces any true stimulant effects ; i. e. that it never increases vital energy or strength of action in the heart and arterial system, even in the slightest degree, or in the most rapid, transient, and fugitive manner. This fact, and numerous similar facts in regard to many other narcotics, show conclusively that the Brunonian hypothesis that all *narcotics* are primarily *stimulant*, is altogether without foundation. This, and many other of Brown's errors that still pass current among medical authors and practitioners, in all probability originated from the observation of the operation of the *nervine* and *stimulant narcotics*, *opium*, *wine*, and *alcohol* ; and from taking them as

perfect types of the whole class of *narcotics*, when, in fact, they possess other and important powers in addition. I suspect that John Murray's abolition of the class of *stimulants* resulted also from his taking *alcohol*, *wine*, and *opium*, as the type of the *stimulants* also, which led him to unite the two classes. Upon the same principles he might also have abolished the class *nervines*, or antispasmodics.

What effect the *Gelsemium* would produce in phlogistic or entonic diathesis, I know not—at least from any observations which I have ever made—as I have never employed it, or seen it employed, under such circumstances. However, I see no reason to doubt that its operation in this condition of the system would be like that of other pure narcotics—i. e. it would do neither good nor hurt. A pure narcotic operation (as I learned many years ago from actual trial, as well as much good testimony) will not subdue phlogistic or entonic action in any degree. I believe that the cases in which it has been supposed to do this, have, undoubtedly, been mere irritative action, and not true phlogistic or entonic diathesis. Irritative action is too frequently mistaken for the phlogistic or entonic. On the other hand, those narcotics which are not stimulant, and which do not possess any other powers, appear to me to be wholly incapable of aggravating any phlogistic or entonic disease, and therefore they produce neither benefit nor injury in such cases, unless it is upon Cicero's principle, '*quicquid non adjuvat obstat.*'

I have likewise carefully watched the effects of this article, for the purpose of ascertaining whether it possesses any true nervine powers; but I have never been able to perceive any. I have never been able to discover that it obviates languor and lassitude under any circumstances, that it produces any degree of the calm, placid, and pleasurable sensation, or of the preternatural watchfulness, or of the exhilaration, which characterize the nervines. As far as I can judge, all its power of allaying morbid irritability and irritation, and irritative action generally, seems to depend exclusively upon its narcotic operation.

I am therefore led to consider this article as a perfectly pure narcotic, and I am in the habit of using it as such in all cases where pure narcotics are indicated; and I have seldom been disappointed in its medicinal effects. It appears to me to be perfectly analogous in its operation to the hydrocyanic acid. If this opinion is correct, the *Gelsemium* certainly deserves to supersede this last-mentioned agent, which is so liable to be variable in its strength, which is so decomposeable, so difficult to be kept, and, in fact, so troublesome of preparation, at least by ordinary practitioners.

One of my professional friends has suspected this article of being deobstruent (in the strict technical sense in which I define this term), because it sometimes produces a speedy and direct resolution of certain merely irritative atonic inflammations. It appears to me, however, to be much more probable that it produces this effect solely by virtue of its narcotic, and therefore antirritant powers. Although the essence of entonic phlegmonous inflammation may not be the preternatural strength of action which attends it, yet the thorough removal of such preternatural strength of action always breaks up and obviates the disease; and, in like manner, though irritation may not be the essence of the atonic inflamma-

tions which are curable by this article, yet the perfect obviation of all the irritation in such cases may be adequate to break up the disease, precisely as the obviation of preternatural strength of action breaks up and cures entonic phlegmonous inflammation.

The medium dose of the tincture heretofore mentioned, is from fifteen to twenty minims for an adult, which may be repeated at intervals from three to six hours, according to the urgency and other circumstances of the case. As it is such an extremely active article, we should always begin with a sufficiently small dose, to preclude any possible ill effects, which dose should be gradually increased till some slight symptoms of narcosis are manifested. It should then be continued in uniform doses, at regular intervals, taking care to give each succeeding dose a little before the effect of the preceding one has entirely disappeared. It will be obvious that when the system is very much occupied by a severe disease, a much larger quantity must be necessary than under different circumstances; and the various susceptibilities of different persons must likewise cause a correspondent variation in the required doses.

I have found it often useful to conjoin a moderate quantity of opium with this article, and sometimes even a large quantity. Such a combination is certainly far more antirritant than either article separately, even in larger quantities. Besides, opium seems to counteract the power which this article has of producing ultimate narcosis, in contradistinction from a remedial degree of this operation; and this often enables a patient to take a much larger quantity of it than he could otherwise tolerate; and while it prevents the disagreeable effects, it augments its true medicinal powers, and enhances that operation for which it is employed. In low states of the vital energies, it is sometimes useful also to conjoin it with aromatics, alcohol, and tonics. These, in like manner as opium, counteract its liability to produce ultimate narcosis, and, instead of lessening, often greatly augment its useful effects in certain conditions of the system. I suspect that the failure of the pure and simple narcotics to produce beneficial effects in certain cases to which they have been supposed to be appropriate, which is so often complained of, not unfrequently results from a deficiency of skill as respects conjoining them with proper adjuvants and corrigents. It appears to me to be certain, that the aggregate of symptoms which I am in the habit of designating by the phrase *ultimate narcosis*, is never of any remedial utility, any more than ptyalism from mercury. At all events, these symptoms may certainly be counteracted and prevented by acrids, aromatics, and stimulants, without diminishing a particle the useful medicinal effects of any individual narcotic within my knowledge. It is very often the fact, that such a quantity of a given narcotic may be necessary to obviate the symptoms of a particular case of disease, as would produce a troublesome degree of ultimate narcosis without some counteracting agent along with it. Now I am confident that this ultimate narcosis may be perfectly counteracted without at all diminishing the remedial influence of the narcotic employed. Hence the entire fallacy of Dr. Paris's notions in regard to the medicinal incompatibility of stimulants with digitalis, etc.

As the whole of the effects of the *Gelseminum* are merely those of a pure narcotic, so its sole dangerous or deleterious operation consists in

excessive narcosis merely. Now I consider it as well established, that pure, but excessive narcosis, may always be relieved with the greatest certainty by active stimulants, provided they are entered upon before the exhaustion is too extreme, and are given in sufficient quantities. However, when there is reason to think that any material quantity of the substance of the poisonous article remains in the stomach, it ought always to be evacuated at once, and at the very commencement of our treatment, provided the exhaustion is not too extreme to admit of any sufficiently active evacuant process. Under such circumstances, it would be proper to enter immediately upon the freest use of the stimulants, and not to attempt any evacuation till the vital energies are so far increased as to permit the use of such a process, without endangering the instant extinction of life. The rapidity and perfection with which active stimulants give relief under the dangerous operation of the pure narcotics (and this even without the evacuation of the noxious article), is very remarkable ; but, at the same time, it appears to be well ascertained. I have repeatedly witnessed it myself. The stimulants which are to be preferred for the relief of the dangerous operation of excessive quantities of the pure narcotics, and among the rest of the *Gelsemium*, are the water and spirit of alkaline ammonia, the infusion and tincture of capsicum, the spirit of the monarda punctata, or of the laurus cinnamomum, and, above all, alcohol. Some one, or better, a combination of several of these agents, must be given at regular and short intervals, and in such quantities as to produce speedy and decided effects. When these have been produced, the subsequent exhibition of the remedies must be regulated altogether by the condition of the patient, and the symptoms which remain. In an extreme case, while the patient is under this internal treatment, frictions of the extremities, and even of the body, with spirit of ammonia, or of the monarda punctata, or of the laurus cinnamomum, or of the fixed essential oil of capsicum, should be sedulously employed. These preparations should be of just such strength as to produce moderate irritation, and moderate rubefaction, without vesication, and they should be repeated and continued as occasion seems to require. The continuous applications of napkins, kept constantly wet with cold water, to the head, will always be a useful auxiliary to the foregoing medication, except when the powers of life are very nearly extinct, under which circumstances the cold is liable to accelerate the fate of the patient. The foregoing course, it will be perceived, is adapted to a case attended with immediately urgent symptoms. Any judicious physician will easily be able to graduate it to the exigences of a particular case ; and these, it is obvious, may vary very greatly in degree.

In the autumn of 1829, one of my patients, for whom this article had been prescribed, perceiving no very particular effects from the quantity which had been recommended, took, in pretty quick succession, several rather large doses. Soon after even the first dose, she was sensible of a preternatural propensity to yawn ; and after the second, she complained of a distressing sensation in the epigastric region : but not being aware that these symptoms had any connection with the medicine, she took two additional doses, at no very long interval, in the hope that they might relieve the symptom above mentioned. Very soon after swallowing the

last, the distress in the epigastrium was considerably increased ; vertigo, dimness of sight, faintness, constant nausea, and frequent vomiting, took place; the countenance became pale, and had rather a haggard expression; the extremities, and even the whole surface, became preternaturally cool, and the pulse was scarcely perceptible. Being near at hand, I was immediately summoned. Speedy relief was obtained by two or three doses of nearly undiluted brandy (the only stimulant that happened to be in the house), though the patient did not perfectly recover her natural state till after about twelve hours. At the expiration of that time, she was just as well as before the occurrence of the symptoms now detailed.

Dr. Branch, before mentioned, communicated to me the following imperfect account of a case of death from this article. He says, 'a death occurred in this vicinity, twelve months ago' (probably in 1828), 'from the accidental, or rather ignorant swallowing of the *Gelseminum nitidum*. I have the statement from the father of the child. A girl, aged about eleven years, procured a portion of the stem of this plant, about two and a half feet long, and three fourths of an inch in diameter. After detaching the outside bark' (epidermis), 'she scraped off and eat the inner bark with the sap. In about half an hour, she took a hearty dinner; but before she arose from the table she complained of being partially blind. This symptom increased rapidly, and in a short time she could scarcely see at all. In about three quarters of an hour she had an inclination to lie down, and at the same time complained of considerable nausea. A little cream, oil, etc. were given to her by her parents, which probably neither retarded nor expedited the full effect of the poison. She died in an hour after taking it.'

From my knowledge of this article, I have no doubt that the life of this patient might easily have been saved by a proper use of the stimulants, which are so effectual in relieving pure narcosis, had a skilful physician been at hand to administer and manage them.

The diseases in which I have employed this article, with the greatest apparent advantage, are *Bex idiopathica*, or simple idiopathic cough—*Bex dyspnœica*, or dyspnœal cough—*Bex convulsiva*, or whooping cough—*Dyspnœa exacerbans*, or exacerbating dyspnœa—*Phthisis*, of various species—*Arthritis Rheumatismus v. acutus-atonicus*, or acute atonic rheumatism—and *Arthritis Rheumatismus v. sub-acutus*, or sub-acute rheumatism. In the case of a lady more than sixty years of age, whose disease was the sequel of repeated attacks of either acute-atonic or sub-acute rheumatism, in which the joints were permanently enlarged, and not unfrequently painful, and the lower limbs very nearly paralytic, I once employed the tincture of *Gelseminum* with considerable advantage, though a cure was utterly hopeless. This patient was constitutionally very susceptible to the impression of medicine of every sort. From fifteen to twenty drops of the tincture of this article, repeated five times in the twenty-four hours, kept up a slight degree of vertigo the whole time, and rapidly subdued the pain and soreness of the topical affection. That it did not effect a radical cure, cannot be mentioned as any reproach to the remedy. I once employed the tincture of the *Gelseminum* in the case of a young lady, whose disease was probably hysteria, which threatened to pass into epilepsy. It appeared to control and keep off the parox-

ysms better than anything else which was tried. Recovery ultimately took place under the use of this article, in conjunction with various tonics. The tonics had been previously used for a long time, and with very little if any benefit.

Upon the whole, from my present knowledge of this article, I am inclined to consider it as a good succedaneum for the hydrocyanic acid. At all events, it has a superiority over that article in the facility with which it may be obtained—the uniformity of its strength—and the perfection with which it may be kept (as would appear) for any length of time.

September 20, 1832.

NON-CONTAGIOUSNESS OF TYPHOUS FEVER.

Remarks on the Non-Contagiousness of Typhous Fever. By JOHN ROSE, M.D., Rensselaerville, N. Y.

[Communicated for the Boston Medical and Surgical Journal.]

MR. EDITOR,—I see an article in your paper by Jonathan Sibley, M.D. endeavoring to produce arguments in favor of the contagiousness of typhous fever. It would seem rational, before coming to the conclusion that typhous fever is contagious, that we should have some idea of fever, and come to some definition of typhus. In the first place, what is a fever? Is heat, as was supposed by the Greeks, a pathognomonic sign of idiopathic fever? I can readily answer, No. Heat is not always present in fever; and in some it is below the natural temperature of the body, from beginning to end. The number of the pulse, preternaturally augmented, is another symptom, by the help of which some define fever; but as the number of the pulse is not always augmented, it cannot be set down as one of the infallible signs of fever. Many other things accelerate the circulation without producing fever, such as running, speaking, or any great exertion of the body. So will the mind cause an increase in the frequency of the pulse, as may be perceived in a public speaker, who makes a mistake while desiring to excel. It is likewise quickened in the lady who suddenly meets the object of her love. In these cases they cannot be said to have an idiopathic fever. (I may be understood to mean idiopathic fever, whenever fever is mentioned in these remarks.) Thirst is not a pathognomonic sign of fever, for in many instances it has been entirely wanting.

The essence of fever may be said to be those symptoms that constitute the access—the patient may be taken suddenly or not. These symptoms can hardly be described to one who has never seen a case of fever; because there are appearances which cannot be made sensible to another, from the bareness of words. Hence, it is impossible to describe the peculiar appearance of the countenance of a person when about to swear to a falsehood. We cannot convey the idea of the odor of a rose to a man by description; and to obtain a correct idea of its flavor, it must be applied to his own nose. Those who have had a fever may receive some idea of what I mean by the access, if they will call to mind

those disagreeable sensations they had at the commencement of the fever ; described by some as suddenly feeling a listlessness, a sense of debility, languor, sluggishness in motion, frequent yawning and stretching, with a general uneasiness of the whole system, known only to the sufferer. It commonly happens, after the access has continued some time, that it is succeeded by the cold stage. During this stage the patient feels a sense of coldness in his back, thence spreading over his whole body. It frequently goes on increasing, producing a tremor in all his limbs, with frequent successions or rigors of the trunk of the body. When this sense of cold and rigors has continued some time, these become less violent, and are alternated with warm flushings. After a short time the cold entirely subsides, and a heat greater than natural prevails. These symptoms frequently follow the access, though not always. Heat, frequency of the pulse, the particular state of the tongue, and the symptoms that have generally been given as essential to fever, not always being present, cannot be said to constitute the disease. The symptoms of the access, being always present, I call the essence of the disease. Those symptoms being removed, the disease is cured.

A fever is a disease that affects the whole system—which was the opinion of Fordyce. You shall have it in his own words. ‘A fever is a disease which affects the whole system : it affects the head, the trunk of the body, the extremities ; it affects the circulation, the absorption, and the nervous system ; it affects the body, and it affects likewise the mind. It is therefore a disease of the whole system, in every kind of sense. It does not, however, affect the various parts of the system uniformly and equally ; but, on the contrary, sometimes one part is much more affected in comparison to the affection of another. Sometimes those parts that were most affected at one time, are the least at other times ; so that the appearances which are the principal ones in one fever, are by much the slightest in another, or sometimes are totally absent.’

I come now to the division of fever, and this is altogether arbitrary. There is nothing that we know of the origin, nature, or treatment of fever, by which we can make natural divisions. Among the trees of the forest there are certain characteristic marks, by which we can certainly distinguish an oak tree from a willow. By some, fever is divided into synocha, synochus, and typhus. Dr. Good divided typhus into typhus gravior, and typhus mitior. There is one division of fever that seems to be more distinctly marked, and this is a division into intermittent and continued fever ; but if we believe what Dr. Good has said, we may well doubt this division. In Good’s *Study of Medicine*, Vol. II. page 65, you will find that a fever assumes different types and characters. To use his words—‘When intermittent has raged very extensively, it has not unfrequently established a type of one kind in one person, and of another kind in another ; whilst in the same patient quotidians have changed to tertians, tertians to quartans, quartans to quotidians, and all of them, in a few instances, to continued fever, in the most capricious and anomalous manner.’ And there are a hundred other divisions of fever, some depending on the part most affected, such as bilious and sweating fevers, and others depending on the length of time they are supposed to be in running their course. These divisions are not marked by any specific

symptoms or set of symptoms—they exist only in men's minds. It is well to have these arbitrary divisions, for the better investigation of the disease, and for communicating our ideas to one another the more intelligibly. It seems that some medical men make typhous fever to be just what they please; consequently you hear that one physician cures his patients by phlebotomy, cathartics, and nauseating doses of tartar emetics; while another depends upon the stimulating practice from the commencement, moving the bowels only by gentle laxatives. Perhaps the definition of typhous fever, as given by Dr. Good, may convey what is generally meant by typhus, which is the following: 'Pulse small, weak, and unequal, usually frequent; heat nearly natural; great sensorial debility, and disturbance of the mental powers.' The above is a fever that is in nowise contagious.

The word contagion is used by many very ambiguously, and without any precise meaning; they often use the words infectious and contagious synonymously. What I mean by contagion, is this: a certain deleterious something generated by and coming from a sick person, shall touch the body of a person or individual in good health, and communicate to him a similar disease; and this to be done while surrounded with salubrious air. And what I mean by infection, is, a certain deleterious something originated frequently in dirty and filthy places, and may be carried in the clothes or otherwise to a person, causing a fever in said individual, after coming in contact with his body, and remaining some time, till it is imbibed or soaked in.

Against the contagiousness of typhus is this, that it cannot be traced from one individual to another, agreeably to the laws of contagion; and further, the majority of persons that are exposed to fevers do not have the disease, although exposed to the local cause which originated the fever, while visiting the sick. Fevers are frequently imported, but not contagious.

I was informed by Dr. Jackson, of Boston, while attending his lectures, that some few years ago a ship, called the *Ten-Brothers*, arrived in Boston, and that no person was sick with fever on board at the time of her arrival, nor had there been for some time previous. A number of men, ten or twelve, went on board and worked two or three days; with them was the custom-house officer, who, with most of the others, took a fever of a most malignant character. These men went to their several places of abode in the city, and there went through the disease. No one took it of them. This fever was imported, but not contagious.

The cause of fevers seems to be something in the locality of the soil or ground. Epidemics are frequently confined to very narrow limits; sometimes to a city, at other times to half a city, and frequently to one particular part of a city—for instance, to one ward; and no one in the other parts of the city is affected by the epidemic, although there must unavoidably be an intercourse between the sick and well. Were a fever to prevail in a village, and should people visit said place, and remain there two or three days, and a few of which should afterwards have a fever, it would not, in this case, be good evidence that the fever was contagious. It would be more reasonable to suppose that they took it from the same local cause that existed in the village. And this idea is

strengthened by this fact : you remove the sick from this village to a healthy location, and then these individuals might visit them with impunity. A person seldom takes a fever without being exposed to the sick for twenty-four hours or more, and then it must be to the sick where the disease originated ; which forces us to conclude that the visiter took the disease from the local cause that originated the fever.

There are sometimes facts brought forward to show that fever is contagious, because when it makes its appearance in a certain family, a number of the family will often be sick with the prevailing epidemic, and not unfrequently one will be taken after another, until nearly all the members have been brought down by the disease. But this may be accounted for, when we call to mind that they all are subject to the same local causes ; live upon similar articles of food ; drink the same kind of water ; and have a similarity of constitution and predisposition to disease. And when they believe in the contagiousness of fever, this is an exciting cause, as is also the fatigue both of body and mind when friends are sick.

Fordyce, after assiduously investigating fever forty years, came to the conclusion that it was not contagious. Yet, he said, out of two hundred people, one hundred having been exposed to fever, and the other not, a few more will have fever out of the hundred exposed. And Fordyce accounts for it very easily : he says, the exposure to the sick acts as an exciting cause. If you are exposed to a location crowded by people, sick or well, so as to unfit the air for respiration, it will act as an exciting cause. It often happens, when an army is visited by dysentery, that cases are multiplied by the encampment of the soldiers, and especially so if much crowded together. This crowding together acts as an exciting cause in those persons predisposed to the disease.

The late and worthy Dr. Smith, in his Essay on Typhous Fever, had some singular ideas. He believed it *sui generis*. He said he did not know but typhus had some effect on the morals ; for, said he, one of my patients, who had had the disease, immediately upon his recovery stole some article of clothing and made off, although it was said he had been honest previous to his sickness. A physician in our country, deservedly celebrated, used to say, that he could tell whether the fever was a typhus or not immediately on entering the room, although blindfold. This man must have had a very nice sense of smell. I think it must have been equal to the sight and hearing of a couple of gentlemen who fell in company with each other. One said, I cannot hear very well, but can see a very minute object at a great distance. The other said, he could not see very well, but his hearing was wonderfully acute. One said, I see a fly on the vane of that meeting-house ; do you see it ? No, said he, but I hear him walk. To trace typhous fever from one person to another, as contagionists must suppose it propagated, would require persons possessed of senses as sharp as the ones above alluded to. And some other persons would be wanted, with senses equally acute, to follow up the families in which the disease had prevailed, to see if their hair did not fall off, which is of sufficient consequence, with some, to set those down as idiopathic cases of typhus ; although the indisposition in these patients was so slight that typhus could not be detected at the time of the disease.

I consider typhus to be a low continued fever, with not only prostra-

tion of strength, but in the worst cases with great debility, requiring the strongest stimulants. And I believe this disease is caused by some deleterious substance or miasmata generated generally in the neighborhood of the soil; and that it is not contagious, for, giving things their due weight, it cannot be traced from one person to another, agreeably to the laws of contagion. And all the facts that tend to show it to be contagious, may be perfectly explained on true pathological principles, without being under the least necessity of consenting to its contagiousness.

September, 1832.

FOREIGN SUBSTANCE IN THE BACK.

Extraction of Foreign Substance from the Back. By H. A. BARROWS, M.D., Leeds, Maine.

[Communicated for the Boston Medical and Surgical Journal.]

JULY 14TH.—M. C—k, aged thirty-two, complains of pain and uneasiness in the right shoulder, and says it has troubled him for some weeks. Upon examining the part, find no discoloration or tumefaction, but a circumscribed soreness at the inferior angle of the right scapula, often attended with a sharp pain.

20th.—Patient no better; pain and soreness more severe; says it resembles the pain of rheumatism, and occasions much inconvenience about his labor. On examination, find there is a slight feeling of hardness, but the tumor is so small and indefinite that nothing can be made of it. Ordered a stimulating plaister.

24th.—Patient worse; the plaister has done no good; pain at times very acute; says he thinks he can feel something in his back like a penknife blade. Proceeded forthwith to search for the penknife, and find there is indeed that article or some other foreign body in the man's back. The slight feeling of hardness of the 20th had now become a well-defined oblong tumor, very superficial, and two inches in length. I now proceeded to extract this foreign substance, which proved to be, not exactly a penknife, but a long, well-formed *sewing needle*, perfect and entire.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, OCTOBER 3, 1832.

THE CHOLERA IN BOSTON.

THIS disease can scarce be said to have existed *as an epidemic* in this city. There have been but few cases reported, and but one since the 21st of September. Those that have been reported have been malignant, and mostly fatal. Most of them, however, occurred in or about Fessenden

Court, a yard out of Elliot Street, in which the sources of filth and disease were sufficient to account for the development which was there witnessed. On opening the drain, it was found to be obstructed, and that the materials that should have passed into the common sewer, had for some time found their way directly into the well which supplied the inhabitants of the court with water. In addition to this, the stench in and near the court had been remarked upon by the passers-by, for several weeks previous, and, even to the inhabitants themselves, had been a matter of some conversation and uneasiness. There does not then appear much cause to believe that the disease has yet had its course among us as an epidemic.

On Saturday last it was decided to close three of the Cholera Hospitals—that in Tremont Street still to be kept open. This measure may be regarded as a decided expression of the happy state of public feeling now existing on the topic. As to the expediency of the measure itself, there may yet remain perhaps some doubt in the minds of those who have watched the capricious and irregular movements of the disease. Were we justified in reasoning in regard to this, from the analogy of the bowel complaints indigenous in this climate, we might believe that after the first of October there would be little reason to fear it. But those who have examined carefully into the history of its progress, are aware that the approach of winter has not arrested it, or prevented its extension, in those countries and districts where it had become epidemic ; although we are not certain that it has commenced its ravages in any new location at a distance from its previous prevalence, during the coldest of the winter season.

The most signal instances of the destructive violence of malignant cholera will be found to have occurred between the months of April and November. In Astrachan the disease commenced in July ; in Orénburg, in September ; in Moscow, in October. Its ravages in Warsaw date from April ; in Dantzic, from May ; and in St. Petersburg, from June. In Paris it began about the end of March ; in Montreal and Quebec, in June ; in New York and Albany, in July. It is no doubt true, however, that when raging in Orenburg, it continued with little abatement till the month of February, and that its greatest prevalence in England was during the winter of 1831. But it should be remarked, as affording some explanation of these facts, that in Russia all classes live, through the cold season, in close, heated, ill-ventilated habitations, and that the past winter in England was mild and wet to a degree which has not been experienced for many years. We are not therefore unwilling to share the belief so generally and joyfully expressed by our friends and neighbors, that we shall enjoy a reprieve during the present and approaching seasons ; although it is most certain, that, whether the prayers of this community have been heard, and it is to be blest by a permanent immunity, or whether, with the

return of spring, this invincible enemy is to make a second appearance among us, and a longer visit, the progress of events alone can determine.

THE INDIGENOUS PRODUCTIONS OF OUR FORESTS.

It has long been desired by the medical profession that some competent person might occupy himself in searching out, and laying before the public, some account of the medicinal properties of such indigenous plants as promise to become useful additions to our *materia medica*. It is a common, and by no means futile hope, that there exists much hidden healing virtue in some of these productions of the vegetable world. Hence the confidence often placed in the compounds of the charlatan who deals only in roots and herbs—a confidence which is oftener itself the cause of cure, than is the *nostrum* on which it rests—a confidence beyond that generally placed in the most learned physician, and which, if still further wedded by the Indian hue or grotesque costume or demeanor of the dispenser, or any of the other tricks so common among the ignorant pretenders to medical skill, is often won from the high-minded and intelligent, as well as the ignorant and weak.

Little doubt can exist that the notion in which this confidence originates has a good foundation. The error consists in the absurd supposition that the chemical and medicinal properties of plants should be discovered by weak and unlettered pretenders, rather than by men of science. Even should the former class of persons accidentally stumble on a new fact of this description, they would be utterly incompetent to apply it to the cure of disease, of the nature of which they must be ignorant. It is on those of the latter class—on intelligent, learned, enterprising men, that we must depend, to enlighten this dark portion of science, to develop more fully the resources offered the American physician in the vegetable productions of his country.

Dr. Tully, of New Haven, has not only undertaken, but pursued for a long time, and with great success, this arduous investigation. His remarks, which he has kindly communicated for the pages of our Journal, and which we have already recorded, on subjects of this nature, have a rare value to the practitioner. In our next we shall publish his researches on the *Helonias Erythrosperma* of Michaux, and others will follow them no less interesting or important. We cannot but congratulate the reader that he is to receive so coveted information from such a source ; for to no one, we presume, would the profession confide this trust with more confidence than to Prof. Tully.

HOSPITALS.

MASSACHUSETTS GENERAL HOSPITAL.—By the bequest of the late Miss Belknap, an accession is made to the funds of this Institution of about

50 or 60 thousand dollars. This sum will enable the Trustees to extend still more widely the benefits of the Hospital ; and it is to be hoped that some portion of it may be so applied as to increase the number of free beds, for which there is a constant and increasing call.

McLEAN ASYLUM FOR THE INSANE.—Dr. Wyman recently retired from the duties of Physician and Superintendent of the Asylum, which he has long discharged with great fidelity, on account of ill health. We are pleased to be able to state, that he is so far restored as to render it probable he will still afford the inmates of the Institution the benefit of his skill and experience as their physician. Of the duties of superintendence he will probably be relieved by the Trustees.

BOSTON LYING-IN HOSPITAL.—This, the first Institution of the kind, we believe, in New England, was opened in this city about a week ago, and there have already been several applications for admission. Its funds were obtained by subscription, and are somewhat limited at present. The call for this charity has long been urgent ; and we rejoice that at last, after several unsuccessful attempts to furnish proper accommodations and attendance for extremely destitute women at so critical a period, means have been found to make so auspicious a beginning. The House is located at 718 Washington Street. It is under the immediate supervision of 24 directresses, who admit no patients but such as bear a good moral character—married women, or such as have been recently widowed.

The resident physician is Dr. Hook. The attending physicians, Drs. Channing and Hale. The consulting physicians, Drs. Warren, Bigelow, and Hayward.

The payment of \$300 entitles the donor to the command of a bed for one patient a year.

Attempted Assassination of M. Dupuytren.—An individual had been a few days in the Hôtel Dieu with a wound in the left leg. He walked there, and there was nothing at that period in his appearance to indicate insanity. The next morning, however, he was in a state of excitement, and delirium was manifest. The patient jumped from his bed, came out, and would have precipitated himself into the Seine, if he had not been prevented. His ideas took another course. He begged of the attendants to amputate his leg, and asked for a saw to saw the bones ; and having made a second escape, he went to the attendant of the hospital, and begged him, in the most earnest manner, to cut off his leg. This conduct was at first attributed to a mere nervous fit of delirium ; and in order to prevent him from doing mischief, a strait-waistcoat was put on him, and proper medicines administered. When M. Dupuytren visited the patient on Saturday, one of the attendants, it appears, had loosened the strings, although, when the former approached the bed, he kept his arms as if they were confined. Suddenly, however, the madman jumped out of his bed in his shirt, and throwing himself with great force upon his knees, begged of him to have the strait-waistcoat taken off, and only to tie his hands with cords. M. Dupuytren endeavored to convince the man that

the strait-waistcoat was the least inconvenient for him; but in the instant he started up in a furious manner, struck M. Dupuytren a violent blow with his left hand on the chest, and then exhibited a large knife with his right hand, and would have wounded M. Dupuytren with it if assistance had not been near. The person who wrested the knife from the man received a severe wound on his finger. M. Dupuytren, in relating these facts, made some interesting remarks on the nature of nervous maladies, and the acts to which patients afflicted by them are likely to resort. The individual in question, it appears, had no motive of hatred towards Dupuytren; and the cunning with which he concealed the knife with the last fingers of the right hand, while the others, stretched out, gave him the appearance of a suppliant, shows the method of his madness.—*Nouveliste*.

Royal College of Physicians.—Sir Henry Hallford, Bart., president, in the chair.—The second meeting for the season was numerously attended, not only by the most eminent members of the medical profession, but also by many learned and distinguished visitors. Dr. F. Hawkins, the registrar, read a paper, communicated by Dr. Latham, “on the use of opium in fever.” The author stated, that there are certain forms of fever in which the affection of the sensorium greatly outruns and is wholly disproportionate to that of the bloodvessels. He described these forms of attack with considerable minuteness, and stated that they are incident, not so much to the sound and vigorous as to those whose nervous systems have been impaired and shattered by their previous life, whether passed in the strife of politics, amidst the anxieties of mercantile gambling, or under the wear and tear of hard professional toil; but to the same condition, also, the lowest and meanest of mankind may be brought by their cares, and hardships, and privations—and there is no cause which produces this state so frequently as intemperance. The author particularly recommended that the nature of each person’s disease should be considered with a reference to his previous habits and state of health. The form of fever which he described is distinguished by wakefulness, and sometimes by delirium; which symptoms can only, he thinks, be subdued by opium; but opiates must be administered in much smaller doses than would be necessary if the patient were suffering from the same symptoms, and *not* affected with fever. In these cases he thinks that life may often be saved by the dexterous use of opium, when it would be lost inevitably without it.

Contagion.—In the month of September, 1784, a poor woman died in the hospital at Aberdeen, and was buried in a churchyard in the neighborhood. A company of young surgeons agreed with the grave-digger to set a mark on the grave, as a direction for them to find the body for anatomical purposes; but some person, in order to disappoint the grave-digger’s employers, moved the signal to another grave—that of a woman who had been buried three or four months. The party came, and, directed by the mark agreed on, dug up the grave, drew out the coffin, and carried it home. But, upon opening it, a vapor like fume of brimstone came forth, and suffocated them in an instant. Two women, also, going past the room, fell down dead, and it was said that eleven persons perished from the baneful effluvia.—*Taylor on Premature Interment*.

The Living Skeleton Deceased.—Calvin Edson, so well known under the title of the Living Skeleton, recently died in Vermont. It is said that a tape worm, twelve or fourteen feet in length, was found in his stomach after death. If this is true, his extraordinary appetite and emaciation remain no longer so great a mystery.

Appearances in the Body of M. Perier.—The body retained an extraordinary degree of heat. The most remarkable circumstance about the head was the *thickness of the skull*. There was a little serous effusion under the membranes, but the brain was healthy. The stomach, internally, presented several portions of a bright red, from the minute injection of vessels, in an efflorescent form; similar spots presented themselves in various portions of the alimentary canal, and the mucous membrane was in several places much attenuated. The lungs were healthy, the heart soft and flaccid, and the walls of the ventricles thinner than natural.

Whole number of deaths in Boston for the week ending Sept. 29, 36. Males, 22—Females, 14.
Of dysentery, 2—croup, 2—consumption, 7—throat distemper, 1—infantile, 3—convulsions, 1—dropsy in the brain, 2—old age, 2—drowned, 1—cholera infantum, 1—hip complaint, 1—killed in an affray, 1—cancer, 1—inflammation in the bowels, 1—marasmus, 1—typhous fever, 1—inflammation in the stomach, 1—accidental, 2—debility, 1—erysipelas, 1—canker in the bowels, 1—scarlet fever, 1—brain fever, 1.

ADVERTISEMENTS.

BOYLSTON MEDICAL PRIZE QUESTIONS.

At the Annual Meeting of the Boylston Committee on Prize Questions, held on Wednesday, the 1st day of August, 1832, a premium of Fifty Dollars, or a Gold Medal of that value, was awarded to Robert W. Haxall, M.D., of Richmond, Virginia, for a Dissertation on the following question: 'What is the cause of Fistula Lachrymalis; and what is the best mode of treating this disease?'

The following questions for 1833 are before the public, viz: 1st. 'The History of the Autumnal Diseases of New England.'

2d. 'What Insects in the United States, and particularly in the Northern part, are capable of inflicting poisonous wounds? The phenomena of such wounds, and the best mode of remedying their ill consequences?'

Dissertations on these subjects must be transmitted, post-paid, to John C. Warren, M.D., Boston, on or before the first Wednesday of April, 1833.

The following questions are offered for the year 1834, viz: 1st. 'What is the true nature of Polypus in the nostrils; and in what manner may the disease be best treated?'

2d. 'Are the restrictions on the entrance of vessels into port, called Quarantine Laws, useful? If so, in what cases should they be applied?'

Dissertations on these subjects must be transmitted as above, on or before the first Wednesday of April, 1834.

The author of the successful dissertation on either of the above subjects, will be entitled to Fifty Dollars, or a Gold Medal of that value, at his option.

Each dissertation must be accompanied with a sealed packet, on which shall be written some device or sentence, and within which shall be enclosed the author's name and place of residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, if called for within one year after they are received.

By an order adopted in the year 1826, the Secretary was directed to publish annually the following votes:

1st. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which the premiums may be adjudged.

2d. That in case of the publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

GEORGE HAYWARD, Secretary.

Boston, August 4, 1832.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VII.] WEDNESDAY, OCTOBER 10, 1832. [NO. 9.

THE TREATMENT OF GOUT.

Read at the Royal College of Physicians, in June, 1831, by SIR HENRY HALFORD, President.

So much has been written on the subject which I lay before you this evening, that I feel as if some apology were necessary for taking up your time with remarks upon the Gout. But I rest assured, that you will receive in good part the result of my long experience in the treatment of that disease; and that if I state to you that there is no malady to which I am called upon to administer, that I prescribe for with so much confidence in the resources of our art, as for gout, formerly the opprobrium medicorum, you will give me willingly a few moments of your attention.

I will not dwell upon the various seats of gout in the human frame. For though the terms Arthritis and Podagra would seem to limit the malady to the feet and the joints, we have seen it in almost every part of the human system. There are those who believe that they have observed it in the eye. I have certainly seen it in the kidney, in the urethra and prostate gland, and in the tonsils. One of our esteemed colleagues has suffered it there; and I remember an eminent physician in the country so harassed by it, and so disappointed by finding no effect from the most approved remedies for the Angina Tonsillaris, that at length he plunged a lancet into it; if, peradventure, there might be some deep-seated suppuration there, to which he should give an exit. No matter followed; but in a few minutes the gout attacked the ball of his great toe. The Angina was soon forgotten, and the new disease ran its course with all its accustomed severity.

With regard to the remedies for gout, my dependence is placed upon the colchicum. Under the common circumstances of an attack of gout in the extremities, I do not use it immediately, but wait a day or two, until the malady shall have fixed itself. I then direct the wine of the root, prepared according to the directions of the Pharmacopœia; and I do not hesitate to declare, that I have not known a single instance of any untoward effect from it. It often cures the disease without any manifest increase of any of the excretions. Sometimes it produces perspiration, and sometimes it acts as a diuretic—the two objects aimed at generally by a physician in the use of our common resources in the treatment of

this disease ; but so far is it from being prone to purge the body violently, as the *eau medicinale* often did, that I find it necessary, in most cases, to combine a small portion of the sulphate of magnesia with the wine, in the draught in which I administer it. The formula which I have found most useful is a saline draught with camphor mixture, a drachm of syrup of white poppies, and from 35 to 45 minims, not more, of the wine of the root of colchicum, at bed-time ; to be repeated in the morning with 25 drops only of the wine, and half a drachm of the syrup of poppies ; and in this dose a drachm of the sulphate of magnesia. It is necessary to repeat these draughts for three or four successive nights and mornings, and to follow its use by a pill containing three grains of an acetous extract of the colchicum (made by evaporating an infusion of the root in vinegar), and one or two grains of the *Pulv. Ipecac. Comp.*, and the same quantity of the *Extractum Colocynthis Comp.*, and to terminate the whole by a mild purgative.

It has been objected to the colchicum that it produces a temporary good effect only, and that the gout is apt to recur when treated with this medicine after a shorter interval than usual. Be it so for argument sake—yet surely the weight of three or four attacks of the disease, of three or four days' continuance each, not more, is hardly to be compared with the pressure of a six weeks' painful confinement in the spring, and one of equal duration at the latter end of the year, as was the case before the value of this remedy was known ; the paroxysms, moreover, terminating often by distortion and disfigurement of the joints by chalk stones—an evil which is now prevented almost universally by that control which the colchicum puts upon the inflammatory stage of a fit of gout. But my experience will not admit it to be true that the disease returns more quickly. On the contrary, when the liquid preparation has been followed by the acetous extract, I think I am fully justified in asserting that the disease is removed for as long an interval as usually intervened between the fits, when left, as it was left formerly, to patience and flannel.

I am not rash and inconsiderate enough to recommend this mode of treatment to you as a specific system for managing the gout in all its forms, and under all the circumstances of different constitutions, which may present themselves to you. The formula will require to be varied occasionally, and it may be proper in many instances of an enervated state of the frame, to re-invigorate it by a light preparation of the Peruvian bark, after the colchicum has done its duty—or in other instances to give two or three doses of the *Pil. Hydrargyri* at bed-time every night, in order to recall the bile into its proper channels, if the colchicum or the sedative with which it has been combined shall have produced ash-colored evacuations by the bowels, denoting an obstruction of the bile.

Of all the preparations of this valuable medicine, I prefer the infusion of the root in Sherry wine. A preparation has been made, and is in frequent use, in the manner of an infusion of the seeds in preference to the root ; but this has appeared to me to be apt to create an insupportable nausea, such an one as I have seen follow Wilson's tincture for the gout, and the *eau medicinale*. When such an effect has once followed, it is in vain that you request the patient to have recourse to it again. He will answer you, that he would rather endure his disease in all its

severity than subject himself to the misery of such a remedy. This answer I have heard given to a proposal to administer the digitalis, when it had once affected the stomach in this manner—even when it had in one patient evacuated water from the chest in three successive attacks of hydrothorax; and in another controlled a dangerous affection of the heart for several years. No—these patients both declared that they would rather die than swallow one dose of digitalis more.

Before I dismiss the subject of colchicum, I must add that the use of this vegetable in gout is by no means *new*; for it is recommended by Alexander of Tralles, a city of Lydia, in the sixth century, as a remedy for this disease, not under the name of colchicum, indeed, but of hermodactyls. Now the hermodactyls and the roots of colchicum are the same, as you will observe by a comparison of the specimens on the table. Being anxious to obtain some hermodactyls, I availed myself of the good offices of one of the king's messengers, and purchased those before you in the market at Constantinople. They appear to be the same vegetable root as Sir G. Blane has stated on the authority of Sir Joseph Banks: though our estimable colleague, Dr. J. A. Wilson, is of opinion that there is a difference between them. I have not yet infused them in wine, but intend to do so immediately, and to try their efficacy upon gout in the same manner as I have prescribed the colchicum.

But it is not enough to state what I have found the most easy and effectual method of treating a fit of the gout, unless at the same time I lay before you the manner by which I attempt to prevent an attack.

As to medicine, I have had, incomparably, the most satisfaction in giving a few grains of rhubarb and double the quantity of the carbonate of magnesia every day, either at bed-time or early in the morning; or, under evident weakness of the powers of digestion, half an ounce of the compound tincture of rhubarb with fifteen grains of the carbonate of potash, in some light bitter infusion, daily, before the principal meal. The coarser purgatives should be carefully avoided; as I have often known a strong dose of physic, as well as a bleeding, aggravate a mere slight indication of gout into a severe decided fit.

But the management of himself and of his habits, on the part of the patient, is of more importance in keeping off this malady than medicine. His diet must be restricted, and he must dine at an earlier hour than is the custom at present amongst the higher ranks of society; his exercise must be gentle, but regular; his mind must be kept free from solicitude and care; he must avoid intense study,* and he must be chaste. The word which Pliny uses to express this item of precaution is a remarkable one, and, as far as I remember at this moment, peculiar to himself—it is *sanctitas*. He remarks of a friend of his, a martyr to the gout, that 'Pedum dolorem fregit abstinencia, et sanctitate.' This point of conduct may have been thought important in the eyes of the Roman, in consequence of what Hippocrates has remarked in the 30th Aphorism of the 6th Section, relative to the non-appearance of gout before puberty, Παις οὐ ποδαγρία, πρὸ τοῦ ἀρροδισιασμοῦ, especially as his own Celsus had adopted and recorded the same opinion. *Ea raro vel castratos, ve pueros ante fœminæ coitum tentat.*

* Sydenham, a great sufferer by the gout, remarks, 'Quoties me ad hæc studia accipiebam, toties et Podagra recurrebat.'

Be this as it may, I venture to say that the caution is worth observing ; for nothing enervates the system so much as this indulgence, especially in excess ; and an enervated state of the body is that which renders it most assailable by gout.

I have only to add, that I have seen the best possible effect, in a great many instances, from the use of the waters of Aix la Chapelle, in restoring their healthy tone to the knees and ankles, enfeebled or stiffened by repeated fits of the gout.

THE *HELONIAS ERYTHROSPERMA* OF MICHAUX.

On the Medicinal Powers of the Helonias Erythrosperma of Michaux.

By WILLIAM TULLY, M.D., Professor of Materia Medica and Therapeutics in the Medical Institution of Yale College.

[Communicated for the Boston Medical and Surgical Journal.]

As my last communication was upon a *pure and simple narcotic*, I shall follow it with an essay upon another indigenous article of a similar character, viz. the *HELONIAS ERYTHROSPERMA* of Michaux ; the *Helonias læta* of the Botanical Magazine ; the *Melanthium lætum* of Willdenow ; the *Melanthium Phalangoïdes* of Laellarck ; the *Melanthium Musciticum* of Walter ; and the *Anthericum subtrigynum* of Jacquin. This plant belongs to the Natural Order *Melanthaceæ* of Robert Brown ; the *Junci* or *Janceæ* of Jussieu and others ; and the *Coronariæ* of Linnæus. Its only popular appellation (at least, that I have ever heard) is *Fly-poison*. It grows in various places in the Southern and Middle States ; and, I doubt not, might be successfully cultivated in favorable places in the Northern States. The name *Helonias* is said to be derived from the Greek *helos*, a marsh, because many of the species of this genus grow in boggy and wet situations.

The root of the *Helonias erythrosperma* is bulbous, but is mostly made up of a sort of husks, the solid central part being very small in proportion to these husks. Both the husks and the central part have the same taste, though in the husks it is considerably weaker. I have always used both of these parts in my officinal preparations. This root has been long known to be an active narcotic. The trivial name imposed upon it by Walter, viz. *Musciticum*, which was perhaps a mere translation of its popular appellation (or possibly its popular appellation may have been a translation of Walter's trivial name), undoubtedly has reference to its powers. James Mease, M.D. in his edition of Willich's Domestic Encyclopædia, published in Philadelphia in 1803, says, on the authority of William Bartram, that 'this plant possesses deleterious qualities, and is seldom or never eaten by deer or cattle.' He adds, 'a strong decoction of it sweetened, is used to kill flies ;' and 'rats are also destroyed by it.' Dr. William Meigs Haud, in his 'House Surgeon and Physician,' published in New Haven, Ct. in 1820, says, 'this root is a poison of that kind called by physicians narcotic. It is capable of stupefying insects, and even rats. It is a useful agent belonging to that class of articles in which opium, foxglove, thorn-apple, etc. are placed. It should not be

used except by physicians. It may be reduced to a pulp, in a mortar, with honey, molasses, or syrup of sugar ; or it may be given in the form of infusion, and probably of tincture.' James McBride, M.D. late of Charleston, S. C. in Elliott's 'Sketch of the Botany of South Carolina and Georgia,' published in 1821, says, 'this plant is a narcotic poison, and is employed in some families for destroying the house fly. The bulbs are triturated and mixed with molasses or honey, and the preparation is spread upon plates, and placed in parts of the house most infested. The flies are soon attracted, and the poison takes effect while they are sipping it. They are perceived to stand unsteadily, totter, and fall supine. Unless swept into the fire, or otherwise destroyed, the flies revive in the course of twenty-four hours.' John Torrey, M.D. in his 'Flora of the Northern and Middle Sections of the United States,' published in New York in 1824, says, 'this plant is a narcotic poison, and is used in the Southern States for destroying flies.'

Several years ago, through the agency of my friend Isaac Branch, M.D. of Abbeville, S. C., I procured a considerable quantity of the root of this plant, and immediately commenced an investigation of its powers, in my customary manner, and uniformly with the following results. In about two hours after a sufficient dose of an alcoholic tincture (prepared in the manner hereafter to be specified), a glow is usually felt in the epigastric region, apparently referrible to the stomach itself, accompanied with an occasional sensation of flashes of heat throughout the whole system. Next the sight is affected : there is a sensation of too much light, accompanied with indistinct vision ; and on sudden and considerable motion of the head, the patient is almost blind. The symptoms increase rapidly, and very soon there are vertigo and slight darting pains in the head, an indescribable sensation in the epigastrium, with a feeling as if respiration were about to cease ; the pulse (without any previous increase of strength) becomes weak and quite unfrequent ; the extremities are cold, and much exertion produces complete blindness for the time being. Next follows nausea and commonly vomiting, but without any relief of the previous symptoms. Subsequently the patient has sensations of heat and cold alternately, which are more particularly referred to the epigastric region ; the pulse becomes small as well as weak, and is sometimes as infrequent as forty beats in a minute. In four or five hours, all the symptoms commonly reach their height ; and in seven or eight they commonly disappear entirely, and without any inconvenient consequences whatever. It will be perceived that the foregoing constitutes the operative effects of as large a dose as can be conveniently taken by a person in health, as a mere experiment.

In 1829, Dr. Branch, without any knowledge of the results to which I had arrived, prepared, at my suggestion, a saturated tincture of this article, and made a single experiment upon himself, with as large a dose as a fluidrachm at once. In his own words, the circumstances were as follows. 'At about eleven o'clock, A. M.,' says he, 'I took a teaspoonful of the saturated tincture. Half an hour after twelve, I dined heartily. At one o'clock, P. M., I experienced a genial glow in the region of my stomach, with occasional flashes of heat, and at the same time my eyes were slightly affected. It seemed as if the pupil admitted

too much light ; although, upon examination, it did not appear to be dilated. If I turned my head suddenly around, I became almost blind. At half after one o'clock, P. M., the symptoms above mentioned were considerably increased. I felt an indescribable distressing sensation in the epigastric region ; my extremities were cold ; my pulse at the wrist weak, hardly perceptible, and about sixty beats in a minute. At this time I walked out, but before I had proceeded two hundred yards I became entirely blind. Upon this, I stopped a short time, when my sight gradually returned, so that I proceeded to my apartment. After this, I immediately became sick at my stomach, and rejected my dinner, which appeared as if in a state of fermentation. I did not observe that the act of vomiting at all relieved the existing symptoms. After this, I had sensations of heat and cold in the region of the stomach ; slight pains in the head, which were accompanied by diminution of sight and vertigo on moving the head suddenly ; together with cold extremities from the first operation of the medicine. At three o'clock, P. M., the pulse was very small, and only about forty beats in a minute. Half an hour after three, the symptoms were at their height ; and at six they had all pretty much disappeared, the pulse being about seventy in a minute, which is about five beats less than their natural standard, and I felt tolerably well. At seven, P. M., I eat a hearty supper, and no bad consequences resulted from the experiment.' Dr. Branch says, 'you will observe that I took nothing to obviate any of the symptoms, it being my determination to let them take their course.' He says further, 'I do not regret making the experiment, although I have no disposition to repeat it. My opinion is, that two teaspoonfuls would have put out my lamp.'

A friend and correspondent, to whom I had recommended this article as a substitute for the *hydrocyanic acid*, says, 'I was called to visit a woman who was laboring under a severe catarrhal affection. She complained of urgent pain, not only in her back, but in both her upper and lower extremities, which resembled rheumatism. She had pain also in the region of her stomach. Her pulse was frequent, rather full, but entirely destitute of any preternatural strength. Although perfectly aware that the disease was not true rheumatism' (a complaint in which this agent has been supposed to be valuable), 'still I administered a teaspoonful of a saturated proof-spirit tincture of the *Helonias erythrosperma*. In the course of two hours I called again, and found my patient considerably agitated by fear. She said she could hardly breathe—that she experienced an indescribable sensation in her head—and was occasionally almost blind. She complained of cold extremities—her pulse was weak, and not more than fifty beats in a minute—nausea soon followed, and not long after a severe paroxysm of vomiting took place. All these symptoms were readily and easily removed by opium, camphor, and carbonate of ammonia—and with them, the disease under which she labored absolutely and entirely disappeared.'

The only certain and positive conclusions that can be drawn from the foregoing statements of the obvious and prominent operative effects of the *Helonias erythrosperma*, are, that it is a highly active, and (for aught that appears) a pure narcotic. The circumstances that it immediately renders the pulse weak, small, and quite infrequent ; and that its opera-

tion is so transient, seem to evince that it possesses no true stimulant, and certainly no tonic powers. This I have verified by the observation of its effects in small and frequently repeated doses. The vomiting which it produces seems to be the mere consequence of its narcotic operation upon the brain. No cathartic effect from it has ever, to my knowledge, been noticed; nor any cholagogue, expectorant, diaphoretic, diuretic, nor emmenagogue operations; nor is it probable that any one of these is to be looked for, from its continued use. However, from the known powers of some other articles which, in botanical affinity, are very nearly allied to this plant, I am not entirely without anticipation that it may yet prove to be deobstruent in some respects, as well as narcotic; and that, of the several parts of a deobstruent operation, it will at least be found to be resolvent, i. e. capable, by internal use, of obviating directly certain acute and sub-acute atonic inflammations, particularly of the arthritic sort. Indeed, it has already acquired the popular reputation of being 'good for rheumatism.' This anticipation, it is true, is derived rather from its botanical affinities than from any precise and definite observations that have ever yet been made by any adequate judge of its real effects. In my remarks upon the *Gelsemium nitidum*, I have explained how I imagine the pure narcotics may, under certain circumstances, obviate and remove mere irritative atonic inflammations, by virtue of their antirritant operation merely; and perhaps this is all that is in reality to be expected from this article.

The narcotic operation of this article being so pure and intense, I have employed it, in some ten or a dozen cases, as a substitute for the *hydrocyanic acid*; and, as far as I was able to judge, with very satisfactory effects, quite as satisfactory as I ever experienced from that acid. I have some reason to suspect that it is not quite so manageable as the *Gelsemium*, since, in one case at least, while I was gradually increasing my dose, and carefully watching for operative effects, by which I might regulate its future size, symptoms of narcosis, that were somewhat urgent for the time being, took place suddenly. The symptoms in question were, however, very speedily and perfectly relieved by one or two doses of French brandy but very little diluted; but the patient experienced some alarm, which was unpleasant.

It is not yet ascertained whether water or alcohol, or a mixture of the two, is the best menstruum for the active principle or principles of this article. I have never employed any other preparation than the alcoholic tincture; and this I have found to be quite active enough, even in small doses. The following is my formula:—

Tinctura Heloniadis Erythrospermæ.

R. Radicis Heloniadis erythrospermæ contusæ uncias quatuor,
Alcoholis officinalis (gravitatis .835) octantem unum et dimidium.
Misce et macera per hebdomedam, et exprimens cola.

Of this preparation, the commencing dose should seldom be more than ten minims; but it should always be gradually increased till some operative effects are manifest. From twenty to thirty minims have commonly been the quantity that I have found necessary. The periods of repetition should be from four to six, and sometimes even eight times, in the

twenty-four hours, according to the nature and urgency of the symptoms, and the susceptibility of the patient.

As is the fact with the *Gelsemium*, I believe the operation of the *Helonias* is greatly assisted by conjunction with opium, in most cases ; and, in many, by conjunction with stimulants or tonics. On the other hand, I have made sufficient observations upon the solitary effects of opium, and also of stimulants and tonics, in the cases to which I consider this article adapted, to be well satisfied that it is a valuable addition to the agents just mentioned. When this article is given in conjunction with these agents, a patient will commonly be able to take a much larger quantity of it without any disagreeable operation upon the brain ; and he will require a less quantity of opium, in order to produce the desired degree of effect from that remedy.

As the only deleterious operation of the *Helonias* seems to be purely narcotic ; and as an excessive but pure narcotic operation is the most effectually relieved by the simple stimulants, in conjunction with the stimulant and nervine narcotics, it need hardly be mentioned that capsicum, ammonia, alcohol, wine, and opium, are to be considered as the appropriate remedies for the excessive effects of this article.

The diseases in which I have known this article employed, and found useful, are the same in which the *Gelsemium* is recommended. It appears to me that there can be no rational doubt, that an article possessing such decided activity, must, on proper investigation, prove to be a valuable medicinal agent, in a greater or less number of cases, though it may not yet be precisely determined what particular complaints it is capable of controlling the most effectually.

Method of obtaining the Vegetable Alkali Sanguinarine, which is treated of in Volume VI. Page 245 of the Boston Medical and Surgical Journal.

For the best process for obtaining the vegetable alkali *Sanguinarine*, I am indebted to Mr. Augustus A. Hayes, of Windsor, Vermont, the discoverer of the principle in question. It is as follows. ‘Macerate the bruised root in about three times its bulk of cold rain water, previously acidulated with one eightieth of its weight of strong sulphuric acid. Allow the mixture to remain three or four days in a cool room ; then decant and filter the liquid, and repeat the process, using a more dilute acid. The filtered liquid contains an acidulous sulphate of the alkali’ (*Sanguinarine*), ‘in solution with other vegetable principles. Render the clear liquid slightly alkaline by adding a’ (watery) ‘solution of pure ammonia. Allow the bulky precipitate to subside. Decant the supernatant fluid, and wash the precipitate, placed on a filter, with water rendered slightly alkaline by ammonia, till it passes colorless. A small quantity of cold rain water will then remove the last portions of the ammonia, and the filter with its contents may be then dried as soon as possible, taking care that the temperature does not exceed 212 deg. Fahrenheit. When dry, macerate in alcohol, at the common temperature of the atmosphere, filter the fluid, and wash’ (the residuum) ‘with alcohol as long as it dissolves

anything. Put the liquid into a retort, and distil off three fourths of its bulk. Pour the remainder into about eight times its bulk of cold rain water. Collect and wash the precipitate :—it is *Sanguinarine*.'

The process for the preparation of *Sanguinarine*, which is given in Professor Silliman's Chemistry, is as follows, viz. : 'Digest the bruised root' (of *Sanguinaria Canadensis*) 'in three parts of cold diluted sulphuric acid (water ten, acid one). After twenty-four hours, decant the liquid; and repeat the operations twice, using water but slightly acidulated. Mix the liquors and filter; and to the clear red liquor which passes, add a' (watery) 'solution of ammonia as long as it occasions precipitation. Decant the fluid after subsidence, and wash the brown precipitate in cold water. It is *Sanguinarine*, combined with extractive and coloring matter, and mixed with some earths. Dissolve the soluble part in warm alcohol, and wash' (the residuum) 'with the same. Distil the clear liquid from a glass retort placed in a vapor bath. When the solution becomes turbid by concentration, it must be decanted while hot, into cylindrical vessels, one half filled with pure water. The alkali is precipitated in the form of a yellowish white bulky powder. It is mixed with a portion of a substance insoluble in diluted acids, and resembling resin. By dissolving the soluble part in muriatic' (hydrochloric) 'acid, with ten of water, precipitating by ammonia, and treating as above, the alkali is obtained pure. It should be washed, and collected in covered vessels.'

This, it will be perceived, is essentially, indeed almost identically the same process which I have employed. Where it differs, I do not think it is for the better, and probably not for the worse. I am informed by Mr. Hayes, that the process detailed by Dr. Dana, published in the Annals of the Lyceum of New York, and republished in the 22d No. of the New York Medical and Physical Journal (to which it is not in my power to refer at present), is imperfect, and at least will obtain only a minute quantity of the alkali. I have now no recollection of the details of the formula in question.

I shall only add, at this time, that the period of collecting the root of *Sanguinaria Canadensis* very materially influences the quantity of *Sanguinarine* that may be obtained from it. When it is collected in the autumn, after the decay of the leaves, it affords a much larger quantity of the alkali than when it is collected in the spring; and I have reason to believe that it affords more, when collected at this season, than when collected at any other except the autumn.

September 24, 1832.

REMARKS ON IRRITABILITY AND TORPOR.

BY THOMAS MINER, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THE extremes of irritability and of torpor, as they have frequently been met with in the irregular fevers of the interior of New England during the present century, shed more light upon epidemic cholera and other malignant diseases, than is to be found in all the writings of Europeans which we are in the habit of reading in this country. Cases of dysentery

have been often seen, in which the system was so irritable that opium alone accomplished more than all other remedies. In these instances, a single grain of calomel has sometimes been found to evacuate the bowels a dozen times, though the patient at the same time was taking from fifteen to twenty grains of opium a day. This is the extreme of irritability and debility, in which all evacuation and reduction is injurious, and liable to be fatal. Other varieties of dysentery have been witnessed, in which five grains of opium an hour would not restrain the diarrhœa, or make any very sensible impression either for the better or worse. These cases were the extreme of torpor, and often admitted doses of calomel in the early stage, varying from a scruple to a drachm, assisted by essential oils, aromatics, capsicum, alcohol, and a moderate, regular use of opium.

It is easy to see that something more than the name of the disease, or even its being a mild or a severe case, is necessary to make out our indications, when the same malady is liable to appear in such opposite forms. An accurate attention to the preponderance of irritability or of torpor will reconcile much of the clashing and seemingly contradictory testimony, concerning the apparent success of various and opposite practice in the same nosological disease. It will also show how the wildest treatment very often makes but little impression, for the present, in the torpor of cholera. If this torpor has not been of long duration, and the actual debility is not extreme, it is occasionally removed by any sudden shock that is not so violent as to extinguish the remaining vitality. But when both exhaustion and torpor are very great, as is usually the fact in sinking typhus, and not unfrequently also in cholera, the patient sinks instantly after any considerable depletion and evacuation, and commonly falls never to rise again. After bleeding he faints, and sometimes dies, before the ligature is taken from the arm.

Torpor sometimes may occur in entonic diseases, and thus counterfeit debility, as in the depressed pulse of active pleurisy. This, however, is never the case in wide-spreading, malignant epidemics; as they have been always, through all periods of medical history, of an atonic character. No extensive epidemic can be found in the annals of medicine (the small-pox and other exanthemata being probably the only possible exceptions) in which the state of the system was not typhoid, atonic, or asthenic. These general rules, and the experience and observation which have been accumulating since the days of Hippocrates, seem to have been almost entirely overlooked in those parts of the world in which cholera has prevailed. This new disease seems to have taken the profession by surprise. It has hitherto prevailed, in our country at least, in cities where low, sinking, torpid diseases had been uncommon, and where the principles of their management, if not absolutely unknown, had rarely been put in practice. The consequence has been, that no one plan or general system has been regularly followed or fairly tried. This is evident from the various practice of the different hospitals, and the vacillating, indecisive treatment at the same hospital, as well as opposite and contradictory management in the same patient. It is believed, that in a single case, ice and calomel, brandy and bleeding, have often been resorted to, within the course of an hour. Some physicians appear to be suspicious of everything, sceptical of everything, and fearful of everything, except

bleeding and death. No sooner are the evacuations checked by opium, than they must be restored by cathartics : the moment reaction begins, its consequences are anticipated by venesection or leeches. At the very first, congestion, which is always the result of local or general debility, is so much dreaded, that it is to be prevented by increasing this very debility by copious depletion, instead of restoring tone to the system.

Our shipmasters, who have no theory of congestion, or of internal inflammation, or fear of the reaction that they may produce, have certainly had the best success, by early treating their subjects just as they would do in cases of common cholera, with opium, essential oils, alcohol, and external heat. The practitioners of the British East India Company appear to have saved the next greatest proportion, and lose only one in six or seven of their patients. They pursue the same plan with the shipmasters, except that they generally add calomel to their opium, which the torpor of the liver seems to require, and often employ the lancet. Depletion is, however, a doubtful remedy, and, according to Dr. James Johnson, should be only employed at the very access. Except upon the principle that any sudden and strong impression sometimes relieves, it is inconceivable how bleeding can ever be of any service, only that it may occasionally increase the susceptibility of the system to other remedies. It is, nevertheless, in every acute atonic disease, a hazardous operation, of very questionable utility; and when indiscriminately resorted to, is liable to do more injury than any one measure that is likely to be adopted.

General rules only can be given in writing, or be taught by the professor. Their application depends upon the knowledge, skill, and tact of the individual practitioner. It is impossible to say of a case which has not been seen, whether the extreme torpor of cholera, or of any other malignant disease, would be best combated by large doses of calomel, or of oil of turpentine, or of mineral solution, or of capsicum, or of essential oils, or of alcohol, &c. ; or how far they are to be assisted by opium and other supporting agents. Extreme irritation is occasionally found to alternate with extreme torpor in the same patient. The case, elsewhere mentioned, of the patient whose pulse was only twenty-seven beats in a minute, and in twelve hours afterwards was as frequent as a hundred and thirty in the same time, is a striking example. It is very essential to distinguish between this kind of irritation and entonic inflammation, as entirely different remedies are applicable to the two cases.

It is by closely attending to the principles and distinctions here suggested, that some of our most formidable diseases, such as typhus syn-copalis, pneumonia typhodes, and typhoid dysentery, have become divested of most of their terrors ; and it is only in the same way that we are ever to expect to control malignant cholera, so that it shall cease to be an *opprobrium medicorum*.

Middletown, Ct. September, 1832.

 BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON, OCTOBER 10, 1832.

THE SALTS OF SANGUINARINE.

WHEN we published Professor Tully's account of the medicinal powers of the Salts of Sanguinarine, we requested of him a description of his mode of obtaining them. The reader will find this information on page 140, in the present number.

 HARVEIUS DE MOTU CORDIS ET SANGUINIS.

THE history of medical opinion on the subject of the circulation, previous to the discoveries of Harvey, affords rather a curious example of the errors into which even intelligent minds may wander, by permitting theory to guide them instead of observation. During the two centuries which preceded the appearance of this celebrated individual, there existed many anatomists of considerable eminence. The means and advantages enjoyed by them, though less numerous, were the same as those possessed at a later period. They performed experiments on living animals, and dissected them when dead; and even human subjects were not unfrequently furnished them. Their investigations, too, seem to have been well conducted; and their discoveries, both in regard to the structure and use of many parts of the human frame, were unquestionably important: but as far as concerned the functions of the heart and the bloodvessels, scarce a ray of knowledge seems to have dawned upon them; and the avowed doctrines on this subject were even more remote from the truth than those which were advanced by Galen in the 2d century. It was supposed that the chyle, being taken up by the mesenteric veins, was conveyed to the heart, where it was at once converted into blood. This blood was conveyed from the right auricle through the veins into all parts of the body for the purpose of nutrition, and expended in the performance of this function as fast as supplied. The left ventricle and the arteries were regarded as vessels through which air or vital spirits were pumped up through the pores of the skin during the diastole, and sent back during the systole of the heart. The lungs were supposed to be nourished by the left auricle, as the rest of the body was by the right; their main function, however, was thought to be the admission and expulsion of the air; and as the left ventricle must necessarily be supplied with this vital principle, it was naturally concluded that it drew its supply by means of the pulmonary veins. 'Quomodo,' says Fabricius ab Aqua-

pendente, who wrote in 1600, ‘quomodo aer in sinistrum cordis ventriculum, qui caloris incendio flagrat pervenire unquam potuisset, nisi venosum illud vas, quasi manum ad ærem accipiendum, a se ad aeris locum cor propagasset?’ Such were the orthodox medical doctrines received in the 16th century. It is true that many discoveries had been made, utterly at variance with these doctrines. The arteries had been known to emit blood when wounded; they had been seen to empty themselves when between the ligature and the extremities; while the corresponding part of a vein when compressed, was seen to become swollen and distended. But while these facts had failed to suggest a correct view of the subject, anatomists, by attempting to reconcile them with previously received opinions, had been led into the wildest and most extravagant theories. To furnish a triumphant refutation of these theories, and from this singular mixture of truth and error, of fancy and fact, to draw a clear, simple, harmonious system, was reserved for the genius of one man. Although the true doctrine of the circulation has long since lost its novelty, it may not be wholly uninteresting, as the work of Harvey has never been translated, to notice some of the arguments by which he established it. In the proemium of the work, the author gives a sketch of the prevalent doctrine of the day. He then takes occasion to remark, that even on the authority of Galen, the idea of the arteries being air tubes could not be maintained; for that Galen himself had asserted and proved by experiment, that these vessels naturally contained blood, and blood only. ‘Besides,’ he proceeds, ‘if the arteries draw in and expel air during the diastole and systole of the heart, why do they not do this when one of them is divided by a wound? When the trachea is cut, it is evident to the senses that the air enters and returns by two opposite motions; but after the section of an artery, it is equally evident that blood is protruded *by one continuous motion*, and that no air either enters or comes out. If the pulse of the arteries cools and ventilates the parts of the body, as the lungs do the heart, why is it commonly said that the arteries carry into every part blood loaded with vital spirits, by which these parts may be warmed, cherished, and maintained? Do these vessels convey heat and cold at the same time, and in the same direction? How great, too, the inconsistency of those who maintain these opinions! They begin by saying that the heart, the arteries, and the lungs, perform the same office; then they affirm, that while the heart produces, and the arteries convey the vital spirits, the lungs exercise neither of these functions; and finally, adopting the opinion of Galen, they maintain that the arteries contain only blood, and that the vital spirits have no place in them. When we find opinions expressed so completely at variance with each other, how can we avoid suspecting the falsehood of them all?’


The first part of the treatise, including seven chapters, is devoted to the motion of the heart, and the passage of blood through the arteries.

For his views on these subjects, though confirmed by his own experiments and observation, he claims no other credit than that of having chosen judiciously from among the theories of his predecessors. That part of his system which he announces as original, is thus introduced in the eighth chapter.

‘ Thus far of the passage of blood from the veins into the arteries, of the course it takes, and how it is transmitted and distributed by the heart ; in regard to which parts those will no doubt agree with me who are disposed to admit the authority of Galen. But now when I come to speak of the amount of the blood passing through the vessels, and the mode of its supply, these things will be so new and unheard of, that I fear I shall bring upon myself not only the ill-will of some, but the enmity of all men. However, the die is cast ; my claim to indulgence is the love of truth, by which I am actuated, and my dependence is on that candor and liberality which characterize learned and intelligent minds. In truth, when I had satisfied myself both from experiments on living animals, and from careful examination of the structure of the heart itself, how great must be the amount of blood discharged from it, and how rapidly it was transmitted through the vessels ; it could not but occur to me that it must have a motion as it were in a circle. This I afterwards ascertained to be the case : that the blood is projected from the heart through the arteries into all parts of the body by the action of the left ventricle, as into the lungs through the pulmonary artery by that of the right ; and that it flows back from these parts to the right auricle, as from the lungs through the pulmonary vein to the left.’

It has been stated, as the generally received opinion at the time of Harvey’s discoveries, that the mesenteric veins were the conduits through which the chyle was conveyed to the heart. Perhaps it may excite wonder that so gross an error, connected as it was with the inquiries of this illustrious philosopher, should not have been detected by him. A more remarkable fact, and one less creditable to Harvey, is, that after the lacteal vessels had been discovered, and their use pointed out by the researches of Aselli and Gassendi, he continued obstinately attached to his former opinions, and even wrote a treatise in their defence, in opposition to the correct views which were then beginning to be generally admitted. So little was he able at all times to exhibit that candor, on which, when himself the advocate of a new theory, he relied for success with his medical contemporaries. Harvey died in 1657, at the advanced age of 79, leaving behind him a reputation surpassed by that of few men whose names are recorded in the annals of medicine.

THEORY OF MUSCULAR CONTRACTION.

It is commonly said, in explaining this familiar phenomenon, that the fibrils of the muscle assume new dimensions, being diminished in length and proportionally increased in breadth. Mr. Paxton, in his treatise on anatomy, has somewhat modified the theory by referring the effect to a change of the shape of the fibril from a straight line to one composed of numerous straight lines, forming a certain definite angle with each other, thus : 

This seems to account sufficiently well for the actual increase of size which takes place in the muscle in a transverse direction when called into action ; but there is a peculiar phenomenon which takes place at the same time, and which seems not so much to be connected with the shortening of the fibrils, as a direct effect of the effort itself, whether followed by motion or otherwise. We refer to the hardening of the body of the muscle, an effect which is sufficiently sensible to the hand placed over it, and which ought not to be confounded with the alteration in the direction of the bulk. In fact this hardening occurs when the action of the muscle is prevented by an irresistible obstacle. It also ceases as soon as the effort of volition and the corresponding motion are terminated. Thus in a particular limb, as the arm or the thigh for example, the flexor muscles give no greater sensation of hardness when the limb is flexed than when extended ; although during the flexion the hardness is perfectly evident. This hardening occurs on no occasion more evidently than under the influence of cramp, by which however the muscle is not ordinarily brought into action, so as to produce motion of the affected limb.

DISEASES ON THE SOUTHERN SHORE OF LAKE ERIE.

A NOTE from Dr. E. L. Plympton, of Madison, Geauga Co., Ohio, says :

The diseases of this vicinity (and I believe of the country bordering upon the southern shore of Lake Erie generally) during the past spring, were characterized by an unusually irritable condition of the stomach and bowels. During July, August, and September thus far, cholera morbus (for so we call it) has been much more prevalent than ever known here before. It differs, however, from what we have been accustomed to see, by its being attended with little vomiting or purging, earlier prostration of strength, and the most obstinate spasms of the extremities, which is usually the most unyielding symptom of the disease. At present, dysentery of the most unmanageable character is raging in this and the neighboring towns.

Zoology.—The smell of burning assafœtida has a remarkable effect upon wolves. If a fire be made in the woods, and a portion of this drug be thrown into it, so as to saturate the atmosphere with the odor, the wolves, if any are within reach of the scent, immediately assemble round, howling in the most mournful manner ; and such is the remarkable fascination under which they seem to labor, that they will suffer themselves to be shot down rather than quit the spot.—*Featherstonchaugh's Journal.*

Case of Propagation of Ringworm by Contagion.—M. COLLINEAU communicated to the Académie de Médecine the following fact. In an establishment which contains between eleven and twelve hundred females, there is a particular department appropriated for the reception of girls from ten to sixteen years of age, in which they have communication only with each other, and with the persons entrusted with the care of them. In the month of August, 1831, a child with a ringworm on her shoulder, about ten or twelve lines in diameter, was admitted into this establishment. Two months afterwards, one of her companions had a similar ringworm on her arm, and also on her left cheek. At the end of four months, the greater part of the others were affected with the same disease, attacking the arms, thighs, neck, hands, &c. By the 7th February, no more than three out of the seventeen remained who were exempt from the disease; and of these one subsequently, as well as the matron, was affected.

Case of Anasarca cured by Leeches to the Anus.—The following interesting case was communicated to Professor Broussais by M. Roosbroeck. A man was admitted into the hospital of Louvain with his inferior extremities, scrotum, prepuce, and the lower portion of the abdominal parietes, infiltrated. On examination, it was found that all the functions were in normal condition; no other morbid symptom was discovered except the infiltration; the patient complained of no pain, and said that he never had the slightest symptom of disease. The infiltration appeared suddenly, first commencing in the prepuce. Frictions with squills and digitalis, blisters, and diuretic drinks, were tried without effect. M. Donckelaere had the patient under his care, suspecting, on account of the patient having habitually taken spirituous liquors, a chronic irritation of the alimentary canal, the symptoms of which were more or less concealed, ordered fifteen leeches to the anus. The day after, the infiltration had much diminished; the same number of leeches was again applied, and the following day the whole of the effusion had disappeared, and the patient entirely recovered.—*Annales de la Médecine Physiologique, August, 1831.*

Hooping Cough.—Dr. Bland recommends the sulphuret of potash as a remedy for hooping cough. He gives it in doses of ten grains, morning and evening, mixed with a little honey. In six cases of adults in which he administered that remedy, the spasmodic cough, he says, ceased after the second dose, and the catarrhal cough disappeared after a few days.—*Revue Médicale.*

The Communications of Drs. Comstock and Allen have been received.

Whole number of deaths in Boston for the week ending Oct. 6, 32. Males, 15—Females, 17.

Of consumption, 5—stoppage in the bowels, 1—inflammation in the bowels, 3—teething, 3—dysentery, 2—cholera malignant, 2—scurvy, 1—bowel complaint, 1—convulsions, 2—intemperance, 1—drowned, 1—croup, 1—marasmus, 1—lung fever, 1—scarlet fever, 1—canker in the bowels, 1—typhous fever, 2—dropsy in the brain, 1—chronic diarrhœa, 1—apoplexy, 1.

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CAUSES OF EPIDEMICS.

Remarks on the Causes of Epidemics. By JOSEPH COMSTOCK, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THERE is such a general diffusion of all kinds of knowledge, upon all subjects, at the present day, that when a member of the medical profession is obliged to confess his ignorance of the cause of diseases, he cannot but feel that his scientific acquirements and his amount of professional knowledge may be rather lowly esteemed ; that in fact it will be inferred, that he has read and observed but little : or, on the other hand, that if he has read much, or all that has been written upon the subject of causes, the very profession of which he is a member is at a low ebb, in not being able to ascertain a desideratum so immensely important. I must confess, for myself, that I felt no slight mortification, when being lately questioned, by a member of the clerical profession, as to the causes of cholera, and not being able very readily to satisfy either myself or my querist, to hear the reply—that *they were in the same state as the causes of yellow and typhous fever, which had been long before the medical public, but were still unascertained.*

It must be confessed, that upon the subject of the causes of all these, and some other diseases, there is no one paramount principle established. We are still wandering in a mazy labyrinth ; blind, and without a leader. It may not be going too far to predict, that any two of the profession, who might happen to be discoursing on the subject of causes, in company with men of other professions, would be found to be very discrepant in their opinions, and perhaps to end in the stale resort of a reference to the occult, unknown, and unascertained qualities of the atmosphere. This last, this dernier resort, although it has the authority of Sydenham, is in truth and in fact nothing more than a confession of ignorance, total ignorance ! And however thick the veil may have been when used by that author, one hundred and sixty years ago, it is certainly worn rather thin in our day, having been in use ever since.

The subject of causes is acknowledged to be the most intricate and perplexing of any one which is connected with the healing art ; and therefore, doubtless, the most unfit to be meddled with by the present

writer. Yet, mites make mountains ; and had he the command of all the talents, leisure, and pens, of the whole medical world, he would concentrate the whole in the investigation and illumination of *causes*. It is time, high time, that this opprobrium was removed by the substitution of such principles as are sufficiently plausible to produce union of sentiment, if absolute truth is impossible. The present writer can promise nothing more than an abortive attempt ; but if he should prevail on the Sampsons, Goliaths, and lions of the profession, to take the field, he will have done much.

That all diseases must have had a spontaneous, atmospheric, or *non-contagious* origin, at first, is self-evident, however contagious they may have afterwards become.

Smallpox was well known to Sydenham ; but that it was contagious, he appears not to have surmised. He only knew it as an epidemic or sporadic disease, like pleurisy or remittent fever.

When epidemic, we are told by him that it was *mild* and *regular* ; and further, that this mild regular smallpox had a particular season, in which it *became* epidemic. This, he says, was about the vernal equinox ; when it began earlier in the year, as in January, it was more severe, and apt to be more irregular. Has the medical world been thus long deceived respecting the genius and talents of Sydenham ? Was the smallpox as contagious then as it is now, and had he so little sagacity as not to be in the least aware of it ?

I think it immensely more probable that it was, in his time, in most instances, of non-contagious origin—and contagious only contingently. That he was a correct and accurate observer, will hardly at this time be questioned. His assertion, that when smallpox is an *epidemic*, it is also *mild* and *regular*, is a trait in its character in which it differs from most or all other epidemic diseases ; but it is a fact which has been noticed in modern times, and in this State. I will advert to an instance. Some thirty-five or forty years past, it appeared epidemically in the town of Stonington, and in the adjoining towns of Westerly and Hopkinton, in the State of Rhode Island. Dr. Daniel Lee, now deceased, resided at that period in Westerly. He was an eminent and excellent physician, and I learned from him these facts. He attended fifteen hundred patients, most of whom had it by inoculation by himself and pupils. But its *origin* was spontaneous, or at least could not be traced to any source of contagion ; and it, at several different times, appeared anew in persons and families, *spontaneously*, during the epidemic. But what was most noticeable was, that whether it was casual or inoculated, it was *uniformly mild*. Its occasional casual appearance without contagion, in other places and at other periods, is a fact well known in the medical world. Nor is proof lacking of the same *non-contagious* origin of measles and hooping cough, in particular seasons and locations.

The proofs also before the public, as to the *equivocal* generation of cholera, are so pointed and positive as to enforce belief. I own that, for myself, I was formerly of a different opinion. But a certain weight and amount of proof, as was observed by Cicero, is sufficient to render credible the most improbable events. The non-contagious commencement of cholera at Hamburgh, Dr. Fricke's statement puts past all

question.* Authors and authorities are equally positive, however, on both sides ; but on the side of immunity after exposure, and spontaneity of origin, eminently most numerous. We hope, in the progress of these remarks, to throw some light on this obscure and perplexing subject ; but would observe, by the way, that in this respect, cholera is directly the reverse of what smallpox is now—but exactly the same as it was, or appears to have been, in Sydenham's time.

The physicians of the three largest hospitals in Paris, have declared their disbelief of the existence of cholera contagion.

Are intemperance, and filth, and poverty, contagious, which produce it, and the diarrhœa which ushers it in ? Still the case of the man who went from Hawick to Norfolk to sell cattle, is a strong one in favor of contagion ; as is that related by Dr. Bronson, of Albany.† When witnesses on each side are equally positive, we must weigh their credibility ; or, if they are equally credible, we must compare the number of facts which they produce, and be governed by the majority of these.

Of 403 cases noticed at a certain place in the East, 157 of them were in 157 different families. And Mr. Fyfe, at Gateshead, attended 67 cases, of which 54 were in 54 families ; all living in small unventilated houses or rooms, and all the well having unlimited intercourse with the sick.‡ But the instance given by Dr. Fricke, of Hamburgh, of the cessation of cholera in the cholera hospital, where all the inmates (and a great majority of them escaped the disease) were both miserably poor, and grossly intemperate, is very striking.§ Our forthcoming remarks will do something to satisfy ourselves upon these subjects ; but of their effect upon others, they alone can tell. The instances of immunity, however, have been so reiterated and palpable, as even to go far to do away the opinion of contagion among the common people ; which is a very rare instance, as with *them* every epidemic is contagious.

It will be remembered that smallpox, measles, chickenpox, and scarlet fever, are all diseases more modern than the works of any Jewish, Greek, or Roman writer ; no one of either of these nations, whose works have descended to us, having given any account of them : and, again, that these four eruptive diseases, or more especially the three first, were for the space of 800 years, or more, confounded ; supposed to be modifications of one and the same malady, and to have arisen from the same specific contagion. And even in the East, at the present time, the distinction afforded by autopsical inspection is very far from being clear ; nature having so confounded simultaneous cases, in different individuals, as to countenance the notions of Aaron of Alexandria, and Rhazes, more than 1000 years ago, of their being the same.

Should I here advance the idea that human actions, events and revolutions, influence even atmospheric phenomena ; produce changes in the weather and the seasons, giving rise to frosts shed upon the *lap of summer*, and summer suns shining on the snows of winter ; such an opinion would not be entirely new. Hints of this kind are to be found

* See American Journal, No. XX., August, 1832, p. 477.

† See Boston Medical and Surgical Journal, Vol. VI., No. 19, p. 305. Also Vol. VII, No. 7, p. 115.

‡ See Dr. Kirk's interesting pamphlet.

§ See American Journal, No. XX., August, 1832, p. 479.

in Shakspeare ; but however these poetical flights may be, there is reason to believe that the atmosphere of diseases is influenced by the manners and customs, vices and economy, of man ; by what he suffers to accumulate about him, and by what he takes into his stomach. National and neighborhood customs, produce and change diseases. I have known a singular spasmodic kind of fits arise, during a religious awakening, in a number of young women who were its subjects, and apparently prove sympathetically contagious. The music of the violin, although not agreeable to their religious views, was in every case of the greatest benefit. Diet, dress, fasts, feasts, religious rites, and sometimes political institutions, theatres and armies, all influence diseases.

And yet, there is evidently a tendency in diseases to retain their identity, when not turned aside by some powerful agent ; as a proof of which, the description by Rhazes of smallpox is such, that even at this day, as we are told by Dr. Good, little or nothing is to be added.

New diseases are certainly rare ; and such changes in old ones, as to prevent their being recognised, are not very common. Old and forgotten diseases may, however, be reproduced by new customs, modes, and errors, giving rise to their exciting causes.

Aaron of Alexandria, who lived in 622, Rhazes, and Avicenna, all mention smallpox as occasionally occurring more than once in the same person. This would seem to show that it was then a disease of some standing ; for, according to Dr. Heberden, the instances of persons having it twice, or of so supposing, do not occur oftener than once in 10,000 instances.

The Sunday headache is an instance of an old and common disease, occurring on a particular day ; owing to religiously resting thereon, possibly aided by some change in quantity or quality of diet.

We, as relates to our corporeal origin, are from the East ; from that same quarter comes the smallpox, measles, typhous fever, and cholera.

The whole human world, the Egyptian mummy and the Cherokee, have the same number and kind of bones, limbs, muscles, and viscera. All pulses beat with fever, all skins are marked with eruptions, all bowels roll with cholera, from the same or similar causes. The E. I. Sun-derbund fever, as Bishop Heber informs us, is cured by wine ; and is probably the same as our typhus.

Now, although our anatomical structure is alike, and our diseases much the same, and although our susceptibility may be the same to receive them ; yet the customs of different nations may be more or less prone to generate and to spread pestilence, to render its symptoms more or less violent, regular or irregular.

The West is more homogeneous in the habits of its population than the East. The greater regularity of these, in Europe and America, has rendered the same maladies more definite in their symptoms and phenomena in the West, than they were or are in the East.

Hence, variola, varicella, and rubeola, are here distinct, which are there so indistinct as to be considered the same. There is a surprising and unvarying similarity in some things in the religious modes of Eastern nations, from the remotest antiquity.

The Jews, by the laws of Moses, had but one place of worship for

the whole nation—Jerusalem and its temple. Hence the propagation and spread of that great national terror, the leprosy ; and hence the final destruction of the nation, by pestilence, famine, and the Roman arms—the bulk of the nation being in that city, when surrounded and shut in by the Roman army.

So, at the present day, immense multitudes resort to the river Ganges, to Juggernaut and to Mecca, for the purposes of heathen and Mahometan worship. There is no other similarity intended in these facts, than that of the large collections of people of all sorts, men, women and children, on these occasions, which favors the generation and spread of pestilential diseases, in all countries. If cholera did not have its origin in one of these heterogeneous assemblages on the banks of the Ganges, it was prevalent among the multitude, and spread to distant parts by them.

The multiplicity of places, in Christian nations, where public divine worship is held, prevents such immense gatherings and their ill effects. Armies, however, and their retinue, from the time of the crusades to the time present, have not been free from the imputation of generating infection and spreading contagion.

The plague of Athens arose during a war. Pericles shut up the people in that city, whilst the country at the same time was laid waste by armies. In our own country, in Mr. Madison's short war, from 1811 to 1814, we had abundant proofs of this tendency. Spotted fever, typhous fever, pneumonia typhoides, and diarrhœa, swept off numbers of officers, soldiers, and citizens.

I well recollect that the late Professor Wistar, of Philadelphia, in a conversation upon the subject with the present writer, imputed to contagion from the army, the introduction of the malignant typhus into the Southern States ; which he traced on the roads and stations of the Southern army and its divisions as they returned home, and from whom he supposed it was communicated to the citizens. Infection causes an uncertain species of disease ; contagion a specific one. There is therefore some doubt about contagion in this instance.

A heterogeneous animal effluvium is more to be suspected than one to which the bodies of men have become habituated. The miasm of prisons, and the clothes of prisoners, poison those without, whilst they themselves are unaffected. Cities and armies have so far been most affected by cholera. It has seldom swept off the sparse population of country places. Russia is perhaps a partial exception. The filth and heat of Russian cabins afford a congenial air for infection and contagion.

It is not probable that any universal principle in the atmosphere, deleterious to human health, will ever be discovered, and certainly never has been. A succession of seasons, having something peculiar in them in relation to each other, primarily affect the food, and secondarily those, of a particular constitution, who live upon it. But even allowing the cause of a given malady to be atmospheric, it is by no means necessary to assume that this cause is a *miasm*. On this point medical reasonings have been quite too limited. Miasm, or gas, is not always generated in the atmosphere ; but in man himself, and in what is about him. It may arise in the *prima viæ*, in the blood, or in the secretions. Heat and cold are both secreted by animals. A dog's nose is always cooler than

the air in summer, and colder than the other parts of his body—owing to the secretion of cold. The cold tongue and cold evacuations of cholera patients, cannot be owing exactly to the *non*-secretion of heat. The morbid motions actually secrete *cold*; at least if it be true that the tongue, surface, or sweats thereon, and dejections, are colder than the atmosphere, and colder than other parts of their bodies, whither this cool secretion does not extend. The secretion of cold, or of increased heat, may take place in other parts of the body beside the glands, and in other diseases beside cholera, and serve to throw light upon symptoms hitherto obscure. The extremities of the arteries secrete pus, as De Haen long ago observed. Now the atmosphere or aliment may give a new motion to the arteries and glands, and thus produce fever, eruptions, and cholera, with or without any miasm being produced, and merely by a morbid motion. But the *sensible* qualities of the air, since the time of Sydenham, have been too much lost sight of. All the world will admit that extreme heat and extreme cold, or their effects, by preceding and present discrepancies, *do* affect the health and life of man. Sitting by an open window, when the body is heated and in a state of perspiration, often produces indisposition, by sensible means. Damp, drought, and frost, also affect the human family and the food on which they live.

A certain quantity of *mal aria* may be borne with impunity; but when this accumulates to a certain amount, or deteriorates to a certain degree, sickness is the consequence—not in all, but in those previously predisposed by poverty, debility, and intemperance.

It then happens, however, that the emanations from the sick, the dying, and the dead, *add* to the pre-existing *mal aria*; and the consequence is, that the temperate, the sick, and the hale, occasionally fall victims to an epidemic. And on other occasions this law is reversed, and the most healthy are the most liable.

Winds are the *disinfecting* agents of the earth's surface, and by this means become the *infecting* agents of man's system. A dry wind carries off more moisture in a given time from a damp spot, than a hot shining sun exhales.

The cholera has been connected with river banks, marshy places, foul streets, and rear dwellings, shut out from free, pure air, and thickly populated.

The noxious air which gives a local origin to sickness and death, is purified, however paradoxical it may at first seem, *by the dead*.

Those who die, absorb an immense quantity of pestilential gas, in consequence of which every medical man must have observed in some fatal cases, during epidemics, disease enough in one patient to kill a dozen. With the inhumation of such dead bodies, a very great quantity of *mal aria* is buried. Hence it is that very fatal diseases seldom last long in one patient or in one place. The local or occasional cause is soon extinguished, although often with the extinction of very many lives.

It is from this very law of epidemics—I mean that of a vast amount of disease accumulating in one fatal case—that others of the same family are less apt to be affected with the same disease, than when the sick recover or are recoverable. I say *recoverable*; for it is well known that recoverable cases sometimes prove fatal by some mismanagement, either

of the sick themselves or their attendants, and then this melancholy law is not sustained.

Diseases are probably imported in the following way :—The leaven is carried from city to city, from country to country, and from continent to continent, in a small and very inappreciable quantity, by men or by goods. If it, on its first arrival, falls in with a living human body, whose system is in a state to receive it, it may be immediately thus developed. But it often leaves its germ in the impure air and filth of foul streets, oyster cellars, or close apartments, among washerwomen, and their washed and unwashed clothes. It may be brought by, and may be increasing in, the foul dress of a sailor or fisherman, whose own body resists its action ; but who may yet sicken those who are predisposed or unseasoned, in a part of the city at a distance from where he lands. Or it may happen that no one sickens in the town where he *first* lands, owing to its purity and cleanliness ; but upon going to another city, this immunity may not be sustained.

The germ, in any manner introduced into a country, may spread as indefinitely as it finds foul air, foul clothing, or foul stomachs, till it is concentrated in the dead, and buried out of the world with its numerous victims ; and then the epidemic ceases.

When infection is once generated of sufficient intensity to produce malignant disease and death, a process appears to be developed similar to *leavening*. The mite of infection is the leaven, the impure atmosphere of a city is the lump. A small quantity of leaven is capable of introducing a new action into a large quantity of unbaked bread, otherwise termed paste or dough, and of assimilating the whole into its own nature. An immense tub or butt of liquor, into which a spoonful of yeast is introduced, displays this principle by an action still more rapid. In order for this leavening principle to take effect, however, the lump and the liquor must be capable of fermentation. The lump must not be of pulverized chalk, or lime, or gypsum, nor any other material *resembling* flour only ; but it must be flour itself. Nor can the liquor, into which the yeast is introduced, be pure water or pure spirit. It must be *wort*, or something of like quality.

The atmosphere is capable of receiving the pestilential gas, or infectious principle, when it is charged with foul air from animal decomposition, mixed with vegetable putrefaction, and moistened with water. A mixture of sea and river water about the places where large rivers empty into the sea, is to be suspected of sometimes contaminating the air. The intermittent fever about New York and on Long Island, is, I suspect, owing to this cause. This may be aided by a portion of miasm, brought by the Mohawk into the Hudson, and by the latter to the shores of these places. The Mohawk, throughout its whole length, from its source to its disembodying into the Hudson, with all its branches, passes through fever-and-ague districts.

The leavening principle acts not universally, but only in those localities where filth pollutes the air ; and on those bodies predisposed by hereditary idiosyncrasy, or by habit, or by error, or by high health or low health, to receive it. It may be received by the mouth, and swallowed with the saliva ; or inhaled by the lungs. It may be carried by winds, or

by clothes, or by passengers, to places at a distance ; and if in a very concentrated state, may infect a few where the atmosphere is pure from local taint. But it can operate extensively only in cities and streets, and near docks, and river mouths, where there is local impurity ; or upon armies and crowds, whose breath has destroyed the pure oxygen. Hence sporadic cases occur of great malignity, but the heaven is lost most happily with the case. The cause and its consequences carry the creature to its creator, and the contagion from creation. And thus is good commensurate, in some measure, with evil.

There is sometimes no sickness in miasmatic alluvial situations, on and near the banks of rivers, whilst at the same time the hills and highlands in the vicinity are suffering from a destructive epidemic. In such cases the miasm suddenly rises from the alluvion, too sudden indeed for infection to ensue, and lingers and settles around and over the hills and highlands. This takes place upon the aeronautic principle. The miasm of the valley is lighter than the superincumbent air.

But if we inquire why this miasm, when it begins to rise, does not keep on and rise above the hills into the etherial regions, we may answer that it is the same cause which prevents the clouds from rising to the planets ; the attraction of terrene matters below, and the repulsion of hydrogenous gas above. The smoke of chimneys may sometimes be observed descending from the chimney tops towards the earth, instead of, as usual, rising upwards.

There are principles with respect to tornadoes, hail storms, and thunder showers, which apply to miasm and its effects. All travel in veins, and destroy but partially. One farmer's field will be ruined, whilst that of his neighbor adjoining is uninjured. Nay, a part of the same small garden, having the same owner, is frequently cut off, whilst the remnant retains its freshness and vigor.

Life is motion : health is regular and easy motion ; disease is morbid motion ; and *death* is rest or the cessation of all motion. The morbid motions of disease may kill, without deranging the structure. Hence, neither the eye nor the knife of the anatomist can point out either the causes or consequences ; or if they exist, in some derangement of parts, can he discriminate the cause from its effects.

Cholera, consisting in a morbid catenation of motions, has had very little light shed upon it by the numerous *post-mortem* dissections, nor has the analysis of the blood been more satisfactory. It must be pathologically viewed as a train of motions, highly malignant and rapidly destructive. The secretions, the circulation of the blood, the nerves and muscles, the alimentary canal, are all undergoing ruinous morbid motions, by means of spasms, and that very rapidly. The remedies which will break up and overcome these spasms are the most effectual. Safety here depends upon facility. There is no time to be lost ; the quickest remedy is the best.

Emetics, therefore, being the most speedy antispasmodics, are the best of all the remedies yet discovered, and the only ones capable of giving this rapid disease a check, and the system, in time, a sufficient counter shock.

Cholera does not prove to be *typhous fever*, and the ultra-stimulant

plan does not appear to have succeeded. Nor is it an inflammatory disease, but a spasmodic. M. Magendie, with his hot wine and punch, lost rather more than half his patients ; nor has the plan of Broussais, with his bloodletting and ice, much to boast above it.

We are of the number of those who are ready to reverse our opinions, when not founded on facts and experience.

The puking, the diarrhœa, the rice-water secretions, and the cramps, of cholera, are all spasmodic, and are all checked by emetics.

The treatment adopted heretofore by most of the Parisian physicians, has appeared very insignificant, owing to the frivolous doses of medicine which they have prescribed ; they having in most instances appeared to us entirely disproportioned to so herculean a malady as cholera. It is new, and quite recent, and quite agreeable, to hear them tell of an emetic of 25 or 30 grains of ipecac. Yet this is the fact. After enumerating the premonitory symptoms, the Paris Medical Gazette says, that 'recourse must be immediately had to ipecacuanha, which is to be administered in doses of twenty-five or thirty grains, at two intervals of twenty minutes. This evacuant,' it is said, 'has the marvellous property of suddenly checking the diarrhœa, and even the vomiting, if this exists.'

On this side the Atlantic, the same remedy comes recommended by such authority and with such integrity as to arrest attention. Dr. Spencer, now President of the New York State Society, speaking of the first stage of cholera, says, that 'after diarrhœa commences, although many might recover without, there is no security short of an emetic.' For this purpose he would give ipecac., or a combination of ipecac. and tartar emetic, and promote the operation with thorough-wort tea, so as to produce both vomiting and sweating.

Dr. Hopkinson, of Philadelphia, is equally decided in favor of emetics. His emetic consists of two large tablespoonfuls of common salt dissolved in a pint of water, of which he gives a tumblerfull for a dose. He tells us of this emetic having brought back the pulse after it had ceased ; and that his patient recovered from a state of collapse.

A third kind of emetics was introduced by Dr. Smith, of Newcastle ; viz. mustard, in the dose of two drachms in a cup of warm water, repeated, if necessary, every ten minutes. Two reasons appear to have induced Dr. Smith to select this substance for an emetic. The first was, that he had tried it on his own person in the West Indies ; and the second, that it *was a popular remedy among the pitmen for asphyxia from choke damp !*

The saline and mustard emetics are allowed in a state of collapse. Not so of the ipecac. and tartar, recommended by Dr. Spencer ; they must be used earlier, or not at all.

Emetics are antispasmodic and stimulant, and do not debilitate, when they do not prove cathartic ; but the latter effect should be sedulously guarded against in cholera, and other diseases of debility. The sulphate of zinc, although I do not recollect to have seen it mentioned, would appear to be a proper substance, and indeed the most proper of all, from the quickness of its operation and its tonic powers.

As the remote effects of ardent spirits and laudanum are much to be dreaded, if their use is carried to any considerable extent, and as some

stimulant remedy seems indispensable, the one used by Dr. Hopkinson it seems proper here to notice. It is composed of cayenne pepper and cloves, of each a tablespoonful, to a pint of boiling water, to which may be added a little camphorated spirits. The dose is, every ten minutes, one or two tablespoonfuls. Dr. H. would however use this but sparingly, and in general avoid stimulants. Calomel he would, on the contrary, use very liberally.

As Professor Tully, of Yale College, has proved that *opiates* are not *stimulants*, it would not be surprising for the world to find itself in an error respecting ardent spirits. Both are stimulants or excitants of nervous energy ; but do either produce fever ? I suspect not, unless aided by other causes. Intemperance, however, renders both typhous fever and cholera more mortal.

I once visited a female patient, 75 years of age, whom I found as usual in a warm room, with plenty of bed-clothes, and all the comforts of life about her, for she was sick, but at this time intoxicated ! Seldom finding a patient in such a state, I paid some attention to her present situation. I found her feet, hands, and skin, cool, and her pulse not quickened ; all contrary to my expectations. Her disease was pyrosis, her potations French brandy.

The inflammatory diathesis of former days, when beef, pork, soups, and milk, were the diet, and cider the drink, has been declining for a number of years. The universal introduction of tea and coffee, and especially the use of ardent spirits, have introduced the nervous diathesis. The stamina and pulse have declined in vigor ; and this has been aided by the new modes of traveling by steam-boat, stage, and rail-road, instead of on horseback. *At length a frightful manifestation of this diathesis has fallen on the world, in shape of the spasmodic cholera.* Opium in the East, and ardent spirits in the West, have doubtless had similar effects. Is it reasonable to suppose that these articles, so mischievous in producing the disease, can be extensively used in its cure ?

Opiates are accused of aiding cholera in one of its worst symptoms, viz. the *non-secretion* of urine. The spasms after death would seem to place cholera at the very summit of all spasmodic diseases. Even the dead point at the pathology and treatment of this malady ! The thick black blood found in the vessels of the dead subjects, must be owing to the evacuation of all the thinner parts by emesis, sudoresis and dejections. The fluid from which urine ought to be secreted, passes off by the watery diarrhœa ; and sometimes has, as we are told, a resinous smell. The occasional extravasations, the shriveling of the hands, the change of voice, the black bile of the gall-bladder, sometimes with a little yellow or green bile squeezed from the liver ; the suppression of urine, the contraction of the urinary bladder, the external parts of the duodenum and colon *in contact with the gall bladder* ; all these phenomena are to be referred to spasm, local or universal spasm—the contraction of the stomach, or its distension by serum squeezed into it, and the loss of *embonpoint*, to the same.

Of the antispasmodics, ether and assafœtida ought to have a passing notice ; the former especially as allaying the puking.

Of the vast number of documents on cholera, there is not one which

I have seen so completely satisfactory as to its spontaneous origin, as that of the Hamburg physician before noticed. The physicians and Police Board of Hamburg were anxiously watching the progress of the disease in the North of Europe; yet it had not approached that city nearer than 30 German leagues, from abroad, when it broke out there; and it was fully ascertained by the *police* (here was no professional bias) that no connection had been had with any straggler or stranger, nor had one of the inmates of the 'deep cellar,' where it began, been abroad. Here was a *casual* origin, and a cessation equally remarkable.* Into a hemp magazine, the miserable wretches of the deep cellar, with others of their class, 'two hundred and thirteen' in all, 'the majority of whom were habitual drunkards,' were removed. 'Among these persons, only twenty-seven individuals were attacked with the disease;' leaving one hundred and eighty-six of this highly predisposed class unaffected.

In this instance, we suppose that the same kind of pestiferous miasm and motion was generated in the first passages of the person who was first attacked, that caused the disease in other parts of the world. The predisposition, i. e. diarrhœa, we are told had been prevalent in the city, previously to the commencement of cholera. But the great mass of infection was concentrated in those of the twenty-seven who died, and was with them buried out of the world. The prompt attention of the Police Board to removing the impurities of the city, cleansing those collected in the hemp magazine, restraining their drunkenness, and giving them a sufficiency of wholesome food, of which they had been formerly destitute, prevented the leaven of the disease from finding in the air, and in the stomachs of those in the hospitals, materials for further mischief. Hence it became extinct.

Cholera can originate easier spontaneously, in those predisposed by filthy dwellings, poverty and intemperance, than it can continue where all these contingents are reversed.

Lebanon, Ct. October 4th, 1832.

☞ Since the writer commenced the foregoing remarks, he has received from a highly respectable gentleman in New York, Mr. S. Ward, 'Brief Directions for Treatment of Cholera,' originally written for a friend, by Dr. Francis. Dr. F. is of opinion that no one need get the cholera, who pays great and daily attention to his bowels. He mentions, for this purpose, castor oil, rhubarb, and calomel, in case there is any appearance of diarrhœa. His directions are judicious. In general he disapproves of laudanum and camphor. He mentions a liniment composed of tincture of capsicum, spirits of camphor, and spirits of turpentine.

* The reader is desired to examine these statements, in the American Journal, No. XX., p. 477.

SPORADIC CASE OF MALIGNANT CHOLERA IN WESTON.

THE following letters from Dr. James, giving an account of an interesting case of the Cholera in a sober and secluded individual, have been politely handed us for publication by the distinguished practitioner to whom they were addressed.

Weston, Mass. Sept. 20, 1832.

DEAR SIR,—On the 23d of September, 7 1-2 A. M. I was called to Mr. William Coburn, aged 42, who had had diarrhœa for the three previous days, occasioned by eating grapes. Found him suffering from severe cramps of the arms, legs, and chest. His voice much altered, the discharges of the appearance of rice water and very copious, an entire suspension of the biliary and urinary secretions, tongue blue.

11, A. M. Cramps had lessened, vomiting ceased, dejections the same.

7, P. M. Cramps not severe ; bowels quiet ; face, arms and hands, icy cold ; pulse feeble ; parts of the body slightly livid.

September 24th, 8, A. M. Had been raised in bed and fainted, followed by ringing of the ears. Tongue and breath cool, no pulse in the radial arteries, feeble in the carotid—cheeks and nose very cold, feet cold, arms continued icy cold, legs slate color, with dark spots of the size of a pea and less ; many other parts of the body more or less livid ; folds of the skin, produced by pinching, very slowly effaced—voice much suppressed, intelligence perfect ; there had been no secretion of urine for the last 24 hours.

10, A. M. Tongue and breath cold. From this time he sunk rapidly, and died with little suffering between eleven and twelve o'clock. Considering the above as a strongly marked case of Cholera Asphyxia, and being the first that has occurred in Weston, I take the liberty of communicating the same.

Yours, very respectfully,

BENJAMIN JAMES.

_____, M. D.

Weston, Oct. 5, 1832.

DEAR SIR,—Yours of the 30th ult. has just been received. During the last three months, there has been an uncommon number of cases of cholera morbus in this town, not more severe than in former seasons, and they have readily yielded to medicine. There have been also many cases of diarrhœa, which have required repeated alternate cathartics and anodynes, some of them attended with soreness and pain of the bowels, and cramp of the abdominal muscles, and all of them totally different from the usual complaints of the season. I have noticed, in several instances, an unusual absence of bile in the evacuations. Dysentery, which, for the last eighteen years, has commenced in July or August, has not as yet appeared among us.

Mr. Coburn's residence is three quarters of a mile from the public road, and one quarter of a mile from the nearest building. The farm is generally elevated, and has not been affected by the recent frosts which have been so destructive in lower situations. There are, about the place,

no low grounds of any extent, or which have ever been suspected as sources of disease. The family have paid particular attention to the cleanliness of the cellar; as without this precaution, the milk, which is deposited there, would be injured. There is nothing about the house or vicinity of a noxious tendency, unless we might suspect the manure which is always collecting and accumulating in the sties and barn-yards of every farmer throughout the country. Mr. Coburn had not been beyond the limits of the town for the six months preceding his death.

The above and my former communication are at your service in any way that may promote the public good. Yours, respectfully,

BENJAMIN JAMES.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, OCTOBER 17, 1832.

THE CHOLERA IN BOSTON.

SINCE the order of the City Government to close the Cholera Hospitals, there have occurred three or four cases manifesting the symptoms of the malignant form of the disease. Less than this no one could have reasonably anticipated; and we still have abundant cause for thankfulness that we are spared its usual desolation. The number of deaths by this disease, the past two months, has not much if at all exceeded the usual mortality of the same season in other years from the various forms of cholera morbus, and there now exists not the slightest cause for excitement or alarm on this subject.

It should however be borne in mind that the occasional eruption of a single case is evidence that the choleraic atmosphere is with us still. It is the caution of the inhabitants with regard to diet and cleanliness, that has been and still is the means of preventing a more general prevalence of the disease. Let not our exemption lull us into false security. The directions that have been given, and repeated again and again, respecting the quantity and quality of the articles used for food, should be as strictly observed now as ever. It has been a common remark, that places which have been visited by the cholera have experienced a return of the disease after it had abated and been supposed to be at an end. Little doubt can exist that the cause of this second visitation has been the laxity in the diet and habits, which so naturally follows the settled belief that the destroyer had passed through the place. Another circumstance that tends greatly to encourage such a laxity among us, is the season of the year. The approach of cold weather is supposed to be a security, and to justify some more indulgence in the gratification of the palate, some more freedom from the restraints under which people have so long retained

themselves. But let it be remembered that at Sunderland, after the occasional occurrence of a case for several weeks, this disease broke out in all its malignancy as an epidemic in November ; and whether we are safe or not from a similar calamity, depends greatly—we would enforce it on the minds of all—on the choice of the people themselves.

LECTURES ON PHRENOLOGY.

DR. SPURZHEIM'S Lectures on Phrenology continue to attract crowded and delighted audiences. The facility, spirit and clearness with which this able physiologist illustrates his favorite science, give an interest to his lectures that few men can infuse into exercises of this description. Most, if not all his auditors rise with reluctance after listening an hour and a half to his extemporaneous instructions. Among the constant attendants on this course, are our most distinguished physicians, lawyers and divines, and citizens best known for their scientific and literary attainments ; and although we cannot say how many of these are convinced of the correctness of Dr. Spurzheim's peculiar science, most are persuaded that there is more truth in it than they had before suspected, and none can fail to be forcibly and favorably impressed with his ideas of education and of intellectual philosophy. For ourselves, we believe that the efforts of Dr. S. will form among us a new era in education, and open, to the minds of the most intelligent, new and correct views of their moral and intellectual powers, and the best means of cultivating them all, in the most rational and successful manner. The course, we are pleased to learn, is to be given at Cambridge, Salem, and other places, and probably repeated in this city during the winter.

Musæ volitantes.—M. Neuber attributes *musæ volitantes* to the presence of certain parasitic productions, analogous to the microscopic algi. He thinks that these anomalous productions have their seat in the aqueous humor, and in support of this opinion he cites a case related by Rust, in which the *musæ volitantes* disappeared after the evacuation of the aqueous humor. The therapeutic indication would be to destroy the parasites, or to separate them from the tissue where they have taken root. M. Neuber thinks that we may perhaps succeed in destroying them by the employment of the negative pole of a galvanic pile, but he adduces no fact in support of this conjecture.—*Bulletin des Sc. Medicales*.

Chloruret of Lime and of Soda in the Treatment of Venereal and other Ulcers.—Dr. Mene, of Vaugirard, speaks very favorably of these remedies in the treatment of venereal ulcers of the prepuce, amygdalæ, palate, &c. In one patient, in whom the greater part of the glans had been destroyed by chancres, a cure was effected in eight days by repeated lotions with the chloride of lime. Dr. M. has derived equal advantage from these lotions in atonic ulcers, which resisted all other remedies employed

to produce cicatrization. They were healed by washing them with the chloruret, and afterwards covering them with compresses steeped in that liquid.—*Gaz. Med.*

Mustard Emetics in the Treatment of Cholera.—Mustard emetics were introduced into the treatment of cholera by Dr. Smith, of Newcastle. He had tried it in his own person, when resident in the West Indies, and, being aware that it was a popular remedy among the pitmen for asphyxia from choke-damp, he was led to suppose that it might be of service in rousing patients in the collapsed stage of cholera. His suggestion was acted upon at Sunderland, through Dr. Gibson, it is said with beneficial results, and it has since been used there, at Newcastle, and elsewhere. Mr. Greenhow says, that 'in the cold, blue, pulseless stage of the intense type of the disease, I believe it to be a very valuable remedy in relieving the irritation of the stomach, and exciting reaction; but when full vomiting can be excited by milder means, especially when it can be done by copious draughts of warm water only, I consider it safer to avoid the irritating effects of the mustard.'

The remedy is given in doses of two drachms in a cup of warm water, and repeated every ten minutes till full vomiting ensues.

On the Sleep of Plants.—M. Virey, in a memoir entitled, *Flore Nocturne* (*Flora nocturna*), announces the following results or laws which he has deduced from his researches on this subject. Cold and humidity diminish the transpiration of vegetables; the sap, then, instead of ascending to the summits of the leaves and flowers, as during the day, descends towards the roots. Hence, the sap vessels of those parts, frail and fine as they are in many plants, become almost empty and contract by their own elastic force. This is the reason why so many compound flowers, the Malvaceæ, the Convolvuli, &c. close during the night, or even when the sky is covered with clouds. For a similar reason, a numerous class of plants with pinnated leaves, fold them and sleep during the night. The returning warmth of the sun again sets the sap in motion, and again invigorates the leaves and petals. The heat and light dilate the vessels with a sort of turgescence, and expand the foliage until the return of night again drives the sap from their delicate vessels. But why is it otherwise with nocturnal plants, which appear to languish and to be overcome during the day, and unfold their beauties only when the sun is withdrawn? It is because his ardor acts too powerfully upon the frail texture of certain petals—evaporates too rapidly their nutritious juices, and causes them to close. But during the freshness of the night, these juices remain in the tissue of the plant, fill their tubes, and unfold their surfaces to the atmosphere.—*Rev. Encyc.*

Ilicine—a Remedy in Intermittent Fever.—Doctor Emile Rousseau has just published his own observations, together with those of eminent practitioners in civil and marine hospitals, as well as those of various private physicians no less estimable, all uniting in ascribing to the leaves of the common Holly (*Ilex aquifolium*) great efficacy in the treatment of intermittents. They consider this indigenous plant as the powerful succedaneum of quinquina and the sulphate of quinine. Several of them agree in considering the holly as superior to quinquina. Dr. Rousseau deserves great credit in bringing the virtues of this plant so fully into notice. He

has succeeded in obtaining its active principle in an isolated form, and has given it the name of *Ilicine*.—*Rev. Encyc.*

Cause of Goitre.—M. de Humboldt communicated to the French Academy, in October, 1831, some results obtained by Boussingault, in his researches into the causes of goitre, in Columbia. The latter ascertained that in every place in which goitre is very common, the water holds in solution only a very small quantity of air. It is well known that the production of goitre is very often attributed to snow water. This agrees very well with the discovery of Boussingault; since water, in freezing, abandons a great part of the air which it held in solution, so that when melted it is almost wholly free from air.—*Ibid.*

To protect Iron and Steel from rust.—Heat the object until it burns the hand; after which, rub it with very white wax. Heat it a second time in order to melt off the wax, and then rub it briskly with a piece of cloth or leather to impart to it brilliancy. This operation renders the metal proof against rust from exposure to the atmosphere.—*Recueil In.*

Whole number of deaths in Boston for the week ending Oct. 13, 31. Males, 13—Females, 18. Of consumption, 4—stoppage in the bowels, 1—dropsy on the chest, 1—cholera malignant, 6—old age, 2—typhous fever, 4—dysentery, 1—infantile, 2—scarlet fever, 2—dropsy, 2—hooping cough, 1—inflammation in the bowels, 2—delirium tremens, 1—unknown, 1—teething, 1—scirrhus of the stomach, 1.

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THE SPASMODIC CHOLERA.

Remarks on the Pathological Character of the prevailing Spasmodic Cholera, and on the Therapeutic Application to it of Remedial Agents. By J. A. ALLEN, M.D. Middlebury, Vt.

[Communicated for the Boston Medical and Surgical Journal.]

THE present epidemic meteoration, wherever its influence is experienced, manifests its presence and its efficient operative powers upon the human body by the production of a derangement, augmentation, or a suspension of the functions of a part or all of the following systems.

1. The cholera epidemic meteoration is manifested upon the absorbent and exhalant systems, by an entire suspension of the action in some portions of these systems; while in other portions the functions are morbidly increased. The functional disturbance of the absorbents and exhalants of the dermoid and mucous systems, is evinced by an extraordinary change in the quantity and quality of the common effusions of these organic textures. In the dermoid system, a morbid torpidity of the absorbents, or an augmented action of the exhalants, is shown by the copious serum-like sweat, which in cholera *asphyxia* covers the external surface. The mucous membrane of the stomach and bowels participates in the same kind of diseased action, which seems to be demonstrated by the increased quantity of sero-aqueous dejections. The mucous secretions of the mouth and bronchia, although not augmented in quantity, seem to be altered in quality; which is denoted by the slimy matter in the mouth, white coat on the tongue, and cold halitus expired from the lungs. The glandular system is no less impaired in its regular healthy function, than the systems enumerated. The secretions of urine and bile are suspended in their actions. These secreting organs are probably not morbidly deranged, but merely in a state of inaction or torpor; for it is a well-established law of the animal economy, if one system or organ be greatly exalted in its actions, some other system or organ will be proportionally diminished in its functional operations. The intestinal effusions in all fully developed cholera cases, as we have seen, are greatly augmented and changed. Indeed, a severe morbid action of the absorbent and exhalant systems appears to extend through the whole extent of the

vascular and cellular systems ; for it must be by the abnormal action of these emunctories, that the serum of the blood and sebaceous deposit are so speedily eliminated from the body. That these principles are really thus removed in this complaint, is proved by the loss of the serum, leaving merely the thick, dark crassamentum in the bloodvessels, in the fatal and protracted cases, while the serum is seen in the '*watery dejections, or vomitings of a whitish fluid,*' which Dr. Good gives as a specific or pathognomonic symptom of cholera *spasmodica*. These dejections have in fact in India, in Europe and in America, with but few exceptions, been the precursors of cholera *asphyxia*. The duration of these *rice water discharges*, anterior to the dreaded subsidentia, is various. It usually continues from a few hours to several days or weeks. 'It would seem,' says Dr. J. W. Francis, 'that the amount of the premonitory alvine discharges forms at least some criterion of the crassitude of the sanguineous mass, and furnishes data to regulate our prognosis.' Dr. McNaughton remarks, that, 'in a vast majority of cases, a severe attack of cholera is preceded by a well-marked diarrhœa.' The *severity* of the diarrhœa appears often to bear an intimate relation to the intensity of the following natural subsidence. This is probably in consequence of the blood having, by the unnatural discharges, lost a larger proportion of its watery part than it has when these dejections have been moderate. Its liquidity having been thus diminished, its circulation must be rendered more difficult, and the stage of asphyxia ensues as an unavoidable physical result. The *free oil* which has been reported, by Dr. Paine, to exist in an uncombined state in the blood of cholera patients, must obviously be derived from the contents of the cellular system, by the morbid action of the internal absorbents and exhalants. This oil is unquestionably an educt, not a product, of morbid functions. Torpor seems everywhere to pervade the action of the external absorbent system, while considerable portions of the action of the internal are morbidly augmented. That the morbid actions are as intense and as extensive as it is here assumed, appears to be further confirmed by the sudden emaciation, shriveled and sunken countenance, and, more than all, by the absolute change in the blood itself, which has been demonstrated by Dr. O'Shaughnessy.

2. Another distinguishing trait in the character of the present epidemic meteoration, is its tendency to induce an uncommon sedation, or an unequal distribution of the neuralgic influence upon the several systems, and especially upon those essentially concerned in the functions of organic life. In this section of the country, since the epidemic influence has been sensibly operative, a failure of nervous power has been experienced in very many instances, by an unusual debility or subsultus, unattended by any other perceivable disorder, unless a slight coat upon the tongue might indicate a derangement of the mucous membrane of the stomach and bowels, by a sympathetic relation dependent on identity of texture. L. C., a healthy man of temperate habits, awoke in the night in such a state of prostration, accompanied with subsultus, that it was with much difficulty he could speak intelligibly, or walk without staggering for several days. Several children, with mild cholera *infantum*, have suddenly sunk into a state of exhaustion, and died. These, as well as many

other facts extant, plainly show an important change in the prevailing diathesis. Most diseases assume a more typhoid or atonic character. The most serious circumstance in the present diathesis, is the disposition which obviously exists, more especially in cholera cases, to fasten a deadly sedative upon the ganglionic system; thereby destroying the acknowledged centre of reflection to the systems essentially concerned in the preservation of organic life. It is probably the morbid action of the semilunar ganglions, or of the solar plexus, which gives such severe distress of sinking and heat at the pit of the stomach, that is common in cholera *asphyxia*. Autopsic appearances have also fully demonstrated the morbid action of the ganglionic system. Several of the morbid appearances of the semilunar ganglion, at Paris, reported by Pennock and Gerhard, as well as sixteen cases out of twenty examined at Edinburgh by J. Lizars, exhibited in a conspicuous manner the severity of the disease to which the system of ganglions had been subjected. In India often, and in America not unfrequently, the nervous power of this system appears to have been almost instantaneously exhausted, like the electric fluid from a leaden-jar, without any noticeable morbid action in any other system. Persons more usually, however, have been apprised of the approach of these sudden events, by some disturbance in the epigastric region. Under such circumstances, a man recently died in my vicinity. In the worst cases, it has often been repeated that there is neither puking nor purging. These cases show an absolute want of nervous power in the vital organs, and do in fact constitute the genuine '*Mors Epidemica*.' In these cases, there is the absence of the common forming stage of asphyxied cholera. Similar omissions have often been witnessed in other severe epidemics. During the prevalence of the plague, and the spotted and yellow fevers, such events have been witnessed in each malady.

In spasmodic cholera, the cerebrum, or that portion of the nervous system which is efficient in the intellectual operations, or concerned directly with the organs of animal life, does not appear to be seriously affected. Aside from a peculiar abstraction which exists in various degrees of intensity, the mind is clear, and the muscles subservient to volition are moved at will in a pulseless and apparently moribund state. M. W., a patient of Dr. Blinn, in this vicinity, a few minutes before death from cholera *asphyxia* turned easily on his side and adjusted the pillow under his head; and I have recently seen a man, in a similar state, exert sufficient influence on the voluntary muscles to rise in bed and swallow some liquid nourishment. Such an exertion, under such circumstances, must obviously endanger life, although no observable evil was experienced in this instance. Antopsy has rarely shown any marks of disease in that portion of the nervous system immediately connected with the organs of animal life. The morbid appearances observed have uniformly denoted merely a torpor of the capillaries of the venous system. Are the organs of sensation and volition comparatively exempt from disease in cholera *spasmodica*, till they are forced to yield by the suspension of the functions of the systems of organic life?

3. In the prevailing cholera, a morbid condition of the muscular system is manifested by an universal subsultus, or by a violent entastic action

of the muscles. The abdominal and gastrocnemii muscles have usually been most affected, although none of the muscular system, it would seem, have been exempt. In this region, spastic action of the muscles has in some degree been commonly present in the *mild cholera* or *cholerine*. The inordinate action of the muscular system, it appears from the concurrent accounts of the cholera from most of the principal places at which it has occurred in this country, has been less violent than it was in India at the commencement of the epidemic. The spasmodic severity, it would seem, although this symptom is taken as a nominal specific character, is frequently less in this disorder than it is in cholera *biliosa*. Spasms do generally occur, and their violence and continuance may induce such exhaustion as to increase the danger of the case; but, generally speaking, the degree of danger does not appear to be at all in proportion to the violence of the spasms. Indeed, we have been informed by Mr. Orton, that at Bombay, 'those cases which to common observation might appear most desperate, in consequence of the extreme violence of the spasms and retchings, were actually the most tractable.' The same facts have been observed in this country. At New York, Albany, and Montreal, the most fatal cases have not been represented as those most affected with spasms. In this part of Vermont, the fatal cases have appeared to suffer but little from this source. In some other cases the spasms have been more severe, and in the cholera *diarrhœa* they have been very often present. This derangement of the muscular system plainly denotes an unequal distribution of the nervous power, or a diminution of this power. Deprived in any degree of its accustomed nervous influence, the muscular system will be impaired in its functions: its normal *vis insita* cannot sustain its healthy action. In speedily fatal cases, the nervous power is so suddenly suspended that there is no time for rigid spasms; but there remains only slight agitating contractions, from the inherent organization of the muscular fibre, which usually continue for a short time after life is extinct.

4. There is sometimes an excited action of the vascular system in the incipient stage, which is not unfrequently ushered in by a chill. In other instances, the vascular action is languid and feeble from the onset of the disorder. A derangement of the functions of the chylopoietic viscera ordinarily precedes or accompanies each of these states. The subsequent subsidence of the action of the vascular system, is what constitutes an important and alarming event in the progress of the disease, and that which marks its most malignant character. The developement of this state of the vascular system constitutes the cholera *asphyxia*, or cholera *acrotisma*. The accession of this acrotism has generally been regarded as the attack of the *cholera*; but it is evidently only a continued catenation of morbid action—a diseased action of the vascular system, super-added to the functional disturbances already present. Prior to this event, there is in most instances the same diseased state of the secernents and exhalants, and of the muscular and nervous systems. The degree of intensity of these functional derangements may vary in different cases, being influenced by constitutional idiosyncrasy, local causes, and the like. The blood, during this vascular subsidence, already changed and still changing in its physical and chemical characters, becomes lodged in the

capillaries ; giving to the external surface a *blue* or *livid* aspect, while from the feeble efforts of the heart and arteries, owing probably to a deficiency of nervous influence, an engorgement of some of the internal viscera ordinarily ensues. The pathological change in the character of the blood, in consequence of the loss of its serum, by its affording a physical obstruction to its free circulation, may be the cause of the sinking of the pulse in *some cases* ; and in others, this death-like subsidence of the vascular action must obviously occur in consequence of a failure of the nervous power which sustains this system. In many cases, it is very probable that this failure of the pulse is produced by the joint operation of both these causes. This altered state of the blood, it is self-evident, must afford a serious obstacle to the healthy action of the organs ; while it is equally evident that this change in the constituents of the blood demonstrates an important functional alteration in the secernents and exhalants, which in their turn are aggravated by the morbid condition of the circulating fluid.

From the preceding considerations, the extreme danger of cholera *asphyxia* is obvious. Taking into the account the aggregate of all the diseased functions and their particular morbid characters, it is rather a subject of astonishment that there should have been so many recoveries from such a malady, by such a farrago of medication as has been adopted, than a matter of surprise that so many have died.

(To be continued.)

SALINE INJECTIONS IN CHOLERA.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I wish, through the medium of your Journal, to ask the attention of the profession to one of the remedies for cholera, which has not yet, as I conceive, received a sufficiently thorough trial. I mean the *saline injection into the veins*. It is very true, that this measure has in almost all cases failed to preserve life ; but it is equally certain that it has almost always produced a partial and temporary amendment, sometimes a very surprising one. It remains yet to be determined whether some combination of means may not be devised, which shall maintain the ground gained by the injection. These means may be those which precede, as well as those which accompany and follow the operation.

But it is not to this point I intend chiefly to request the attention of physicians. I am ready to argue in favor of the universal employment of this remedy in cases of collapse, upon the ground of what it *now* does. As we have not data upon which to determine what has been the result of all the cases in Europe, I will go no further than New-York. According to Dr. Francis, in his published letter, four out of forty-two were saved. But to take a less favorable statement ; in the Crosby Street Hospital, two out of thirty were saved—and in the Greenwich, one out of thirteen. This will make, to take the very worst of the matter, only one out of fifteen, or about seven per cent.

Now one case out of fifteen is very little to save, it would seem ; and

so it would be of cases taken as they rise. But it is to be recollected, that this seven per cent. is just so much *added* to the cases of recovery. It is in fact diminishing the ordinary mortality of the disease just so much. No cases out of those which form the basis of this calculation, were cases that could have recovered with other means. The patients were not taken till those symptoms had presented themselves which are invariably followed by death ; and those who have seen this disease will probably admit that, although a mistake of prognosis might sometimes occur, it is not likely to occur often enough essentially to affect the correctness of the general remark.

Now this, I say, is as much as can be *proved* with regard to any remedy in the hands of the profession. What sums do communities expend on the cleanliness and purification of cities ? Are they not well expended if they diminish the bills of mortality at this rate ? Do they often do more than this ? To take a common disease, more certainly fatal than even cholera, viz. pulmonary consumption ; do we not strive month after month in the use of remedies, and do not our patients compass earth and sea, when the chance of recovery is not one in a hundred ? Shall we then reject a remedy which does seven times as much ? Do we send a poor invalid, wasted to a skeleton, convulsed with cough, burning with hectic, shivering at every blast, to Cuba, to St. Augustine, or to Italy, away from friends, from the comforts of home, with the almost certain prospect of dying and laying his bones among strangers, while we refuse to the cholera patient the chance which this remedy affords him for restoration, slender as it is ? especially as it costs him no additional suffering, and the practitioner but a few hours' attention. Who, if he loved life, would not grasp eagerly at even so poor a prospect as this ?

There is one other circumstance which should influence our views of the probable efficacy of this remedy. It has been chiefly employed in Hospitals ; and of course in many cases, at least, on subjects who always struggle ill with disease, and who have been exhausted by intemperance, by poor living, cold, too hard labor, and all the other various causes by which the health of the more unfortunate part of mankind is so often undermined. In such, as it appears, the remedy does not succeed, at all. If we could select the temperate and healthy subjects of the remedy, our ratio might perhaps be made much more favorable. It has yet, as I apprehend, so far as published accounts inform us, to be tried on the healthy and temperate individuals in private life who are the subjects of cholera. Hitherto, among ourselves, such subjects have been able to claim no exemption from the disease ; a majority of deaths have probably taken place among those who were at least not intemperate.

A good opportunity is afforded here for the trial of venous injection, because the cases are few, and practitioners are not so hurried with them as to have this circumstance divert their minds from the investigation. The result of one case during the past week, though finally terminating fatally, has been sufficiently favorable to encourage us in the experiment ; and I trust the result of all cases, whatever they may be, will be faithfully recorded, that among ourselves we may have data by which to judge of the actual value of the practice.

W.

Boston, October 23, 1832.

REGENERATION OF NERVES.*

Remarks on the Regeneration of Nerves. By F. TIEDEMANN.

DIVIDED nerves unite and heal. This fact has been established by the experiments of Fontana, Michaelis, Arnemann, Cruickshank, Haighton, Mayer, by Bichat, and by the more recent observations of Swan, Descot, and Larrey.

The reunion of divided nerves is attended by the following phenomena :—the ends of the nerve retract ; the extent of the separation is from two to six lines or more, and is greater in large nerves than small ones. This separation of the extremities of a divided nerve is not owing to elasticity, but is the result of an organic action, or contractility of the neurilema and surrounding cellular tissue ; in proof of which it may be stated that divided nerves in a dead animal do not retract. Inflammation soon commences ; the surrounding vessels contain more blood ; the nerves become of a red color, and are thicker ; the inflammation extends from half an inch to an inch above and below the divided extremities ; the distention of the vessels, the redness and swelling, are, however, more remarkable in the upper than the lower end. Coagulable lymph is deposited around the separated nerves, and in this lymph minute vessels are observable. In consequence of this deposition in the sheath of the nerves, and among their fibrils, the nerves appear enlarged ; the swelling is greater in the upper than in the lower ends. Similar enlargements are discoverable, after the lapse of time, in the ends of nerves divided in amputation.

The coagulable lymph effused during the inflammation, connects the divided nerves in the course of a few days : it gradually assumes a firmer consistence, and the bloodvessels dispersed through it appear to contract, or to contain less blood. The enlarged, or bulbous extremities of the nerves, gradually approaching nearer to each other, at length become incorporated, and thus the connection of the divided nerve is re-established. If the swelling be examined after some time, it is found reddish externally, white internally, and exhibiting fibrils similar in appearance to the nervous fasciculi, and by means of these the nerves become perfectly continuous.

Whether the substance connecting the nerves is similar in organization to the original nerve, and is capable of transmitting sensation, and the influence of the brain in the performance of voluntary motion, are questions which have divided the opinions of physiologists. Arnemann rejected the opinion that the regeneration of true nervous substance took place, having found that, 150 days after their division, the parts supplied by such nerves were destitute of sensation. Breschet, Richerand, and Delpech, adopted the same view.

Fontana, on the contrary, Michaelis, Mayer, Cruikshank, and Haighton, maintain that the reunion of divided nerves takes place by means of true nervous fibrils. Michaelis recognized these fibrils by the microscope, and Mayer demonstrated them by the test of nitric acid. Haight-

* Translated and abridged from Tiedemann's *Zeitschrift für Physiologie*, iv. band, 1 heft. Heidelberg and Leipsic. 1831.

ton, in proof of the regeneration of nervous matter, stated that the reunited *nervi vagi*, were capable of performing their natural functions. He divided the nervus vagus of the one side in a dog, and in six weeks afterwards that of the other side. The animal lived; but when the two *nervi vagi* were divided at the same time, or within a shorter interval, the animals invariably died.

From the preceding experiments and observations, Tiedemann considered it highly probable that true nervous matter was regenerated; he thought, however, that the return of sensation, and the power of motion in parts whose nerves had been divided, was not established so satisfactorily as was desirable. He therefore instituted some experiments on the subject, and one of the most conclusive of these he has detailed nearly as follows. On the 16th of August, 1827, having exposed the brachial plexus of nerves (*arm-nerven-Geflecht*) in a dog, he separated the several nerves, and cut out of each a portion from ten to twelve lines in length. The leg and foot were immediately deprived of sensation and the power of motion. The wound healed in three weeks, but the leg and foot remained without sensation, or the power of motion, for a long time. It became smaller than the opposite one, and, in walking or running, was drawn upwards by means of the muscles of the shoulder.

In May, 1828, eight months after the excision of the portions of nerves, the animal began to use the foot in progression, and showed signs of sensation when it was much pressed, or was pricked with needles; and during this and the following years, sensation and motion were gradually but perfectly restored. In order to examine the condition of the nerves, the animal was killed on June 2d, 1829, twenty-one months after the operation. Where the portions of nerves had been removed, at each extremity of the incision an oval enlargement was found, which was greater at the end nearest the body than the opposite one. In the interval between these enlargements, and connecting them, newly-formed portions, apparently of nerve, were seen. These intermediate portions were thinner than the uninjured parts of the nerve. In order to ascertain whether the regenerated parts really consisted of nervous fibrils, a portion was laid on a piece of glass, and nitric acid applied, but the integrity of the structure remained unimpaired. Hence, from the return of the power of motion and sensation, from the structure of the newly-formed portion, and from the test of nitric acid, Tiedemann concludes this experiment to supply a demonstration of the regeneration of true nervous matter.

Numerous cases are related, for the most part by English authors (as Abernethy, Balfour, Pring, and Swan), of the restoration of sensation after the healing of wounds, in which nerves were divided either by accident, or in operations for the relief of neuralgia. Of these, the most remarkable is related by Abernethy; and one very analogous to it, has been communicated to Tiedemann by Dr. Schott, of Frankfort.

A woman, 40 years of age, had suffered most severely for fourteen years from neuralgia of the ring-finger, particularly of the last joint, for which she could not obtain any relief. Dr. Schott determined, therefore, to remove a portion of the cubital nerve. He laid bare the trunk of this nerve above the inner condyle of the humerus, and removed a

portion of it an inch long. After the division of the nerve, the neuralgia immediately ceased, and the ring and little finger of that hand were deprived of sensation. In order to prevent the reunion of the ends of the nerve, the wound was dressed to the bottom, and healed by suppuration. After three months, the wound was cicatrized, and there was no return of neuralgia ; but gradually sensation returned in the fourth and fifth fingers, and after six months had elapsed she again suffered severe pain in the ring finger, which, however, did not become so violent as before the operation.—*London Medical Gazette*.

NITRATE OF SILVER.

On the Use of the Nitrate of Silver, as an Application in Burns and Scalds. By J. C. Cox, Surgeon, F.L.S. &c.

I TOOK occasion, some time since, to call the attention of the profession to the use of the nitrate of silver in certain cutaneous affections, especially herpes zoster, for which I expressed the opinion that it was almost a specific ; and the employment of that remedy in many severe cases subsequently, has fully confirmed that opinion.

I now desire to recommend the use of the same remedy in burns and scalds, as one more fitted than any other with which I am acquainted, to relieve the present suffering and obviate the future mischief. Where the burn is deep, and has destroyed the vitality of the cutis, of course no superficial application can do more than hasten the separation of the slough, and the spirits of turpentine is still probably the best application ; but where there is extensive superficial lesion, either producing intense redness and pain, or vesication, the nitrate of silver is certainly unrivaled. I have employed it both in very strong solution, and also in the solid form ; but, on the whole, I think the latter by far the best mode of application. The parts being moistened with cold water, the stick of caustic is passed over the whole surface, which may be afterwards covered with cotton wadding and bandaged, where that can be conveniently done. The application does not increase the suffering—all uneasiness quickly subsides, and, in a day or two, the only traces of injury will be the desquamation of the blackened cuticle. Where the process of vesication has commenced, it is immediately arrested ; but if the vesications have been extensive, and the cuticle torn off, or adherent to the dress, there is no application which forms so effectual and complete a protection from the external atmosphere as the lunar caustic. In the latter case, it should be rolled tightly and rapidly over the surface. It appears to combine chemically with the albumen, and to form a covering most beneficial and efficient. Where extensive sloughs have formed, and there is a large granulating surface, the nitrate of silver, in the form of strong solution, applied with a camel's-hair brush, diminishes the irritability of the surface, prevents, to a great degree, the distressing itching, and hastens cicatrization. I would here state that much mischief is frequently done by the use of astringents—as the oxide of zinc, &c.—which cause the cicatrix to contract quickly, and thus to form seams and bri-

dles, which produce frequently great deformity. A young lady, a patient of mine, in dressing for a party, set fire to her pelerine, and severely burned the neck, back, and shoulder. On the shoulder, a large patch was completely disorganized; to this I applied the spirits of turpentine. The other parts were either vesicated or severely scorched, extending over the back and neck; to these I applied the lunar caustic all over the surface, and wrapped the whole up in cotton wadding. In half an hour she became quite easy, went to sleep, and omitted to take the anodyne which was prepared for her. The shoulder was the only part which required any protracted attention.

Master C——, while casting bullets, scalded his hand with the melted lead. He was in great pain, which was only temporarily relieved by cold. I applied the lunar caustic to the surface; the pain was immediately relieved, and the next day there was no soreness or inconvenience.

A boy's face was severely burnt by the explosion of gunpowder. The application of the nitrate of silver completely obviated the ill effects which would otherwise probably have arisen from the accident. The face certainly appeared grotesquely tattooed for a few days, by the application, but all traces were quickly removed.

The above are sufficient exemplifications of a mode of treatment, which will, I am convinced, on trial, be found very beneficial.—*Ibid.*

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, OCTOBER 24, 1832.

LIVES OF EMINENT PHYSICIANS.

WE have before us a little book called the *Lives of Eminent Physicians*, in which are contained many singular traits of the characters of the most distinguished individuals who have practised medicine in Great Britain. From these we propose to make a few extracts, for the benefit of such of our readers as may not happen to have met with the work.

Harvey, though so eminent as a naturalist and anatomist, was by no means remarkable for his success in practice. His prescriptions were so complicated, that it was difficult to discover what object he had in view. He himself complained that after the publication of his work on the *Circulation*, his practice declined; a circumstance which he attributed to the envy of rival physicians. Harvey was severely afflicted with the gout; the attacks he used to treat by placing his legs in cold water, or exposing them to the open air in the coldest weather, as long as it could be borne, and then bring them to the fire. Dr. Good mentions having adopted a similar mode of treatment in his own case, with the happiest effects. The treatise by Harvey, on the *Circulation*, which gained

him such universal celebrity, was commenced twenty-six years before it was published ; so much time did he devote to bring his discovery to maturity. The work was but ill received ; some declaring that the discovery had been made before, others denying the correctness of his conclusions, and all uniting to refuse to him the applause fairly due to his merit. Harvey was naturally a man of violent temper, and in his youth wore a dagger which he was apt to draw on slight occasions. During his manhood, however, he lived on friendly terms with his medical brethren, manifested no asperity toward his rivals, and was ever ready to acknowledge merit in those who differed from or opposed him. None of his expressions uttered in private conversation appear to have been recorded.

Sir Thomas Browne is less celebrated as a physician than as the author of several literary works, among which the *Religio Medici* has obtained the most extended reputation. The most medical of his writings is a treatise on popular superstitions and errors, a work displaying vast research and erudition, but by no means exempt from evidences of the very weakness which its professed object is to condemn. An anecdote is related of him, which exhibits this failing in a very striking light. Having heard of sympathetic needles, by which, when placed over alphabets, two lovers might correspond, he caused two such alphabets to be made, and having suspended his needles, touched them with the same magnet ; then having giving to one a particular direction, he watched to see whether the other would follow it. The result may be imagined ; but the remarkable circumstance about the story is, that he should have anticipated any different effect. Another of Browne's treatises was on *Urn Burial*. It was occasioned by the accidental discovery of some ancient urns, supposed to be Roman, found in a field in Norfolk. In this treatise he discusses the various funeral customs adopted by different nations, and concludes in favor of burning in preference to all others. Browne was the author of several other treatises, which it is not necessary here to enumerate. His attention to literary pursuits, however, seems not to have interfered in any degree with his professional occupation. His biographer observes of him, that he was parsimonious in nothing but his time ; when he had any to spare from his practice, he was scarce patient of any diversion from his study ; so impatient of sloth and idleness, that he would say he could not do nothing. Browne died at Norwich, the scene of his professional labors, in the year 1682, and the 76th year of his age.

Few names in the annals of medicine stand higher than that of Sydenham ; yet there are few lives more bare of incidents than that of this illustrious practitioner. His career appears to have been singularly quiet and noiseless, and he was far from courting that fame which it was his destiny to acquire. An expression of his feelings on this subject is contained in the following passage of his life.

The part he took in the civil wars, and the politics of his brother, William Sydenham, who, under the Protectorate, obtained many high appointments, amongst others the post of Governor of the Isle of Wight, might possibly have kept him out of favor with the court ; in truth, he appears to have been desirous only of conscientiously doing his duty to the utmost of his power, and chiefly anxious to practise his profession in the most unostentatious manner. His distaste for popularity (for it could not be affectation in so candid a nature) may be inferred from these expressions, in the epistle prefixed to his chapter on the gout :—‘ I do not much value public applause ; and, indeed, if the matter be rightly weighed, the providing for esteem (I being now an old man) will be, in a short time, the same as to provide for that which is not : for what advantage will it be to me after I am dead, that eight alphabetical elements, reduced into that order that will compose my name, shall be pronounced by those who come after me ? ’

Sydenham showed his sagacity and independence in rejecting the established mode of treating smallpox by heat and stimuli, and allowing the patient cool air. His writings are few in number. In 1666, he published his *Methodus Curandi Febres*, of which a new edition appeared in 1668, together with a chapter on the Plague of London. His description of this appalling pestilence is highly interesting. The method of treatment he adopted, was to bleed largely in the incipient or febrile stage, before the swellings made their appearance ; and from his language it might be inferred, that where this remedy was seasonably resorted to, and carried to sufficient extent, the disease was certainly arrested. Sydenham was severely afflicted with gout, although his habits of living were exceedingly temperate. Of his abstemiousness, an idea may be formed from the following description which he gives of his mode of living.

‘ In the morning, when I rise, I drink a dish or two of tea, and then ride in my coach till noon ; when I return home, I moderately refresh myself with any sort of meat, of easy digestion, that I like (for moderation is necessary above all things) ; I drink somewhat more than a quarter of a pint of Canary wine, immediately after dinner, every day, to promote the digestion of the food in my stomach, and to drive the gout from my bowels. When I have dined, I betake myself to my coach again ; and, when business will permit, I ride into the country, two or three miles, for good air. A draught of small beer is to me instead of a supper, and I take another draught when I am in bed, and about to compose myself to sleep.’

Sydenham died in the year 1689, at the age of 65. A monument was erected to his memory by the College of Physicians in the year 1830, with the following inscription :—

Prope hunc Locum sepultus est
Thomas Sydenham,
Medicus in omne ævum nobilis.
Natus erat A. D. 1624,
Vixit Annos 65.
Deletis veteris Sepulchri Vestigiis
Ne Rei Memoria interiret
Hoc Marmor poni jussit Collegium
Regale Medicorum Londinense, A. D. 1810,
Optime Merito !

THE DIVING BELL AS A REMEDY FOR CERTAIN DISEASES.

AN interesting account of the descent in a diving bell of Mr. Clifford, of Exeter, N. H. and Capt. Tripe, of Dover, is published in the last number of Silliman's Journal, in which the Reverend author* states some facts leading him to the conclusion that excursions of this kind may be useful in cases of Rheumatism. The pulse, on emerging from the bell, was quick, and perspiration very profuse, and the gentlemen found themselves in a fit condition for a comfortable sleep. It seems therefore not unreasonable to expect some relief in cases requiring stimulating diaphoretics, and in which quiet repose is so greatly desired; but since the common sulphur bath accomplishes these objects in a much more speedy and convenient manner, we can hardly expect that the diving bell will ever be a very general resort for these purposes. The fact, however, of the peculiar influence of these descents on the several functions, should be known to medical men; and we will close this part of our notice of it, by a brief extract from the interesting paper of Mr. Alden.

Mr. Clifford had, for many years, been afflicted with rheumatic pains. During the several weeks he was engaged in this enterprise, *he was remarkably free from this complaint*. The first time he descended in the diving bell, he happened to be considerably affected with his disorder; but, on coming out of it, he was entirely relieved from pain, insomuch that he walked, directly after, six miles, without inconvenience. This was an exertion which he had not thought himself able to make for several years before.

Could a series of experiments be instituted, on proper subjects, who will venture to say that the result would not be such as to render a submarine descent, in a commodious diving bell, a frequent and favorite adventure?

But this is not the only view in which these excursions are to be considered by the physician. The very singular effect they have long been known to produce on the organ of hearing, may possibly lead to more useful results.

In descending, says Mr. A., a painful sensation was induced on the tympanum, attended with a noise, as Mr. Clifford informed me, not unlike that of a fly entangled in a spider's web, till the adventurers were at the depth of about twelve feet, when, experiencing a sudden shock, they were completely relieved. This painful sensation, the shock, and subsequent relief, were regularly repeated, as nearly as could be judged, every twelve feet. After a few descents, it was perceived that, by being raised a foot or two, every eight or ten feet, the shock was avoided, and the men were freed from that painful sensation, which had resulted from the uniformly increasing density of their atmosphere.

Upon the above, Dr. Mease, who communicated the account to the American Journal, makes the following remarks:—

The painful sensation in the ear, mentioned in the preceding paper, is invariably experienced by those who descend in diving bells, owing to

* Rev. Timothy Alden, of Portsmouth, N. H.

the compression of the condensed air on the membrana tympani; but the means of preventing it, which were discovered by Messrs. Clifford and Tripe, are not mentioned in any of the accounts of diving which I have read, nor do the writers of them notice the 'shock' felt by the Portsmouth divers which immediately preceded their relief from the pain. Dr. Hamel, of St. Petersburg, states that he was relieved of the pain by making exertions to admit air through the Eustachian tube into the ears, but succeeded in accomplishing this at first only on one side, when the air rushed into the cavity of the right ear, and the pain ceased instantly; when in the diving bell, he was not aware of the simple way in which it is effected. Dr. Wollaston informed him, that nothing is wanted but to swallow the saliva, as may be seen from the following simple experiment. Close your nostrils with the fingers, and suck, with the mouth shut: air will come through the Eustachian tube from the ear, and you feel pressure on the membrana tympani, which prevents you from hearing distinctly. As the end of the tube nearest to the mouth acts like a valve, this sensation will often remain even after you have ceased sucking. To remove it, nothing is wanted but to swallow saliva, whereby the action of the muscles seems to open the end of the tube, and then the air rushes in to re-establish the equilibrium. During the descent of the bell, Dr. Hamel says that the pain returned; but as he repeated his exertions to open the Eustachian tube, the air at intervals found a passage through it, and he obtained relief. Through the left Eustachian tube no air had yet passed, and the pain in the left ear was gradually increasing; when about fourteen feet under water, the sensation was as if a stick was forced into the ear from without: at last, during one of the exertions to open the mouth of the tube on that side, the air forced its way in with considerable violence through it, and he was relieved from the pain also on that side. I presume the 'shock' experienced by the Portsmouth divers, arose from the rushing of the air into and through the tubes, as it took place immediately preceding their obtaining relief from the pain in their ears. It may be useful to state, that this pain will be much diminished, if the bell be allowed to descend slowly, so as to admit the air gradually into the ear. In ascending, Dr. Hamel says the pain returned, resulting from the air in the inner cavity of the ear expanding, as the external pressure was diminished; but it was more easily relieved, the air gushing occasionally from the ear through the Eustachian tubes into the mouth.

Dr. H. suggests the probability of the diving bell being used with success for the cure of deafness, in those cases where it depends on an obstruction of the Eustachian tube. The patient would have to go down in a diving bell, and make exertions to open the mouths of the Eustachian tubes, and then by the pressure of the condensed air it would be forced through the extent of the tube, and thus clear the passage. He thinks that the fact of such slight obstructions having been frequently removed by forcing air or tobacco smoke from the mouth into the ear, gives weight to the idea: but it is questionable whether the deaf person would be able to bear the great pain which it is reasonable to suppose he must endure from the condensation of the air on the tympanum, until the removal of the obstruction; and his sufferings might be so great as to deprive him temporarily of his presence of mind, and even of his senses. The experiment ought not therefore to be made, unless another person enjoying his hearing accompanied the patient. I have more well grounded confidence in syringing the ears with warm milk and water, to remove hardened wax. The relief experienced by Mr. Clifford from the rheumatism, after his diving, is well worth consideration by the faculty.

THE CHOLERA IN OHIO.

WE regret to hear that the cholera threatens to prevail more extensively in this Western State than was at first anticipated. The following notices of its progress are selected from the public papers.

Columbus, Oct. 13.—A letter from a gentleman at Mt. Vernon, dated on Tuesday last, informs us that on the Friday preceding a man residing about three miles from that place, who had recently visited Cleaveland, was attacked with spasms, and died on Sunday following, in spite of the utmost exertions of three medical attendants. On Monday, Dr. Maxwell of Mt. Vernon, one of the physicians who had attended on the deceased, was suddenly seized with the most alarming symptoms of cholera, and survived only about 12 hours.

Cincinnati, Oct. 12.—The cholera is raging fiercely, and more malignant than it was in N. York. Those taken do not live more than three to six hours, and nearly every case, so far, has terminated fatally. It is more indiscriminate here than elsewhere; it attacks high and low. The report to-day is 23 cases for the last 24 hours, and it only commenced this week.

October 13.—Thus far the panic among our citizens, in regard to the cholera, has not been great. There is, happily, a disbelief prevailing in the community, in the contagiousness of the disease. We have heard of but one or two families that have left the city. As yet there has been little or no interruption to business of any kind.

The number of cases, reported by the Board of Health for the last twenty-four hours, ending at 12 o'clock yesterday, was nineteen, of which twelve had proved fatal. There is reason to believe that all the cases have not been reported.

BOSTON DISPENSARY.

At the annual meeting of the Contributors to the Boston Dispensary, on the 11th inst. the following gentlemen were chosen Managers for the ensuing year, viz.: Edward Tuckerman, S. H. Walley, Isaac Winslow, Benj. Guild, Gideon F. Thayer, Samuel T. Armstrong, Jona. Phillips, Samuel May, George H. Snelling, Otis Everett, N. P. Russell, and Rev. N. L. Frothingham. Gideon Snow, Esq. was re-elected Treasurer.

At a subsequent meeting of the Managers, Edward Tuckerman was chosen Chairman; George H. Snelling, Secretary; and the following Consulting and Visiting Physicians for the year ensuing.

Consulting Physicians.—John Dixwell, M.D., John Randall, M.D.

Visiting Physicians.—District of Wards 1 and 3, Augustus A. Gould, M.D.—Of Ward 2, Ezra Palmer, jr. M.D., Henry Dyer, M.D.—Of Wards 5, 6 and 7, Jos. Roby, M.D.—Fort Hill District, James Wood, M.D.—Broad Street, Paul Stimpson, M.D.—Of Ward 10, Edward J. Davenport, M.D.—Of Ward 11, Alexander Thomas, M.D.—Of Ward 12, J. B. S. Jackson, M.D.—S. Boston District, C. S. Whitman, M.D.

The following is an abstract from the returns of the nine Visiting Physicians of the Dispensary, for the year ending Sept. 30th, 1832:—Whole number of cases, 3040. Cured, 2712. Relieved, 74. Still under treatment, 70. Removed, 47. Dismissed, 28. Dead, 96. Incurable, 13. Births, 166.

A new Plant which furnishes a wholesome and limpid Water.—The English have discovered in the countries which they have recently added to their empire in India, a shrub, the stem of which, when cut, furnishes a great quantity of pure and limpid water. The natives are very familiar with this precious property; in consequence of which, it is very rare to find a whole and well preserved plant of this kind. It climbs up trees to a very great height; it has not yet been described.—*Recueil Industriel*.

M. ORFILA has suffered a violent attack of cholera at Paris. His disease was attacked with vigor, and, we are happy to add, with success.

Whole number of deaths in Boston for the week ending Oct. 19, 34. Males, 25—Females, 9.
Of cholera malignant, 6—scarlet fever, 1—dropsy on the brain, 1—old age, 1—disease of the glands, 1—brain fever, 1—consumption, 4—intemperance, 1—delirium tremens, 2—infantile, 3—cholera infantum, 1—burns, 1—inflammation in the bowels, 1—croup, 2—canker in the bowels, 1—lung fever, 2—apoplexy, 1—throat distemper, 1.

ADVERTISEMENTS.

ALLEN & TICKNOR,

HAVING purchased of Messrs. CARTER & HENDEE the retail department of their Bookselling Establishment, including their general stock of Medical Books, will continue the business at the store lately occupied by C. & H., corner of School and Washington Streets, where they will keep constantly on hand a complete assortment of Medical, Theological, School and Miscellaneous Books, and a complete assortment of Stationary, Cutlery, &c. &c., English and American, wholesale and retail.

N. B. Particular attention paid to Medical Books.

The Physician's Case Book.

Just published, by Allen & Ticknor, A Case Book for Registering Cases and Occurrences that may be considered important in Medical and Surgical Practice. eop3t. Oct. 24.

BOYLSTON MEDICAL PRIZE QUESTIONS.

At the Annual Meeting of the Boylston Committee on Prize Questions, held on Wednesday, the 1st day of August, 1832, a premium of Fifty Dollars, or a Gold Medal of that value, was awarded to Robert W. Maxall, M.D., of Richmond, Virginia, for a Dissertation on the following question: 'What is the cause of Fistula Lachrymalis; and what is the best mode of treating this disease?'

The following questions for 1833 are before the public, viz: 1st. 'The History of the Autumnal Diseases of New England.'

2d. 'What Insects in the United States, and particularly in the Northern part, are capable of inflicting poisonous wounds? The phenomena of such wounds, and the best mode of remedying their ill consequences?'

Dissertations on these subjects must be transmitted, post-paid, to John C. Warren, M.D., Boston, on or before the first Wednesday of April, 1833.

The following questions are offered for the year 1834, viz: 1st. 'What is the true nature of Polypus in the nostrils; and in what manner may the disease be best treated?'

2d. 'Are the restrictions on the entrance of vessels into port, called Quarantine Laws, useful? If so, in what cases should they be applied?'

Dissertations on these subjects must be transmitted as above, on or before the first Wednesday of April, 1834.

The author of the successful dissertation on either of the above subjects, will be entitled to Fifty Dollars, or a Gold Medal of that value, at his option.

Each dissertation must be accompanied with a sealed packet, on which shall be written some device or sentence, and within which shall be enclosed the author's name and place of residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, if called for within one year after they are received.

By an order adopted in the year 1823, the Secretary was directed to publish annually the following votes:

1st. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which the premiums may be adjudged.

2d. That in case of the publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

GEORGE HAYWARD, Secretary.

Boston, August 4, 1832.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VII.] WEDNESDAY, OCTOBER 31, 1832. [NO. 12.

CASE OF CHOLERA TREATED BY SALINE INJECTIONS.

BY J. GREELY STEVENSON, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

OCTOBER 16. G. R., aged 22, a shoemaker, of temperate habits and feeble health, has suffered mental distress from family events these two days. He had no alvine evacuation yesterday, ate beef and bread at dinner, toast and tea at supper, and was at work in his ordinary state of health. He is habitually costive. At 5, A. M., to-day, he had a copious dejection; seven smaller discharges occurred in the course of two hours. At 11, A. M., he was visited by a physician; he had just come in from the privy with cold skin, feeble pulse, anxious look, and nausea following profuse vomiting. A small dose of rhubarb with camphor was administered, and hot applications were made to the surface.

1, P. M. Lies in bed, making no complaint but of cramps, which are almost entirely confined to the left gastrocnemius; they are rare and slight in the right. No abdominal soreness. Countenance haggard, purplish; dark areolæ round sunken eyes; skin deadly cold; hands of a dirty blue color; skin of the fingers corrugated. The mind is tranquil, or indifferent; the senses perfect; no ringing in the ears. The voice is husky. Respiration is quick, somewhat laborious. Pulse 120, imperceptible in the left wrist, very feeble in the right, not tumultuous in the carotids. Tongue yellowish on surface, dotted red at tip and edges, dry, rough, cold. Thirst not very urgent. Vomiting of a thin fluid of the color of rhubarb. No dejections since 11 o'clock; their color is not known. No urine since 6, A. M.

R. Hydr. Submur. gr. i.

Tinct. Opii gtt. ii. to iv.

To be repeated every ten minutes. If the vomiting ceases, continue the calomel and omit the laudanum. Give drinks sparingly. Apply hot sand to the epigastrium, and hot fomentations to the legs.

3, P. M. Has had one dejection of a half pint of clear, colorless liquid, containing three or four flakes, and looking like pure water into which one may have spit a little phlegm. Has vomited a little yellowish, turbid fluid. Says that he feels quite well, were it not for the cramps. The skin is warm and wet; the face darker; eyes more sunk; fingers more blue and wrinkled; the voice more husky. Buzzing in the ears.

Pulse is imperceptible in both wrists ; 120 in carotids. Continue the treatment.

5, P. M. Has taken twenty grains of calomel, most of which, or all, has been rejected. Dejections of colorless fluid, with cream-like mucus. Pulse still imperceptible ; voice entirely extinct ; respiration high, laborious ; skin cold and wet ; and all unfavorable appearances are increased. The cramp has extended to the thighs.

Drs. Jackson, Bigelow, Channing and Ware, agreed in the opinion that no hope of recovery remained unless by venous injection. At 6 o'clock a vein was opened in the bend of the left arm, and three pints of the following solution were slowly injected.

Sodæ Muriat. $\mathfrak{D}\text{i}$.

Sodæ Carbonat. gr. vij.

Aquæ, Oi. ; 108 deg. to 115 deg. Fahr.

An amendment soon took place in the color and expression of the face, and the pulse returned at the wrists. Towards the close of the operation the patient complained of distress at the præcordia, and the respiration became laborious and irregular. A half pint of blood was allowed to flow from the orifice already made in the vein, and these difficulties subsided. Let a little brandy and water be given occasionally.

10, P. M. The good effects of the injection ceased about 9 o'clock. The skin is now cold ; the voice, a whisper ; the pulse, gone. The patient says that he feels better, and only needs strength ; but all appearances are as adverse as before the operation. The blood drawn at the last visit has not formed any coagulum ; the serum has separated, and is coagulated by heat like healthy serum.

A vein was opened above the inner ankle of the left leg, and eight pints were injected by the assistance of Drs. Channing and Ware. The heat of the solution, which was of the same strength as the one used before, was maintained quite steadily at 114 deg. Fahr. The patient did not show any sense of the incisions made now, nor before. During the operation the countenance gradually improved, the surface became warm, the pulse returned, and the breathing was more easy and regular. Towards the close of it the patient, unquestioned, said in a good voice, ' It is astonishing how much better I feel.' He was allowed to take \mathfrak{z} ss. of tea frequently ; and was left at 1-2 past 12 with warm skin, good complexion and countenance, hands less corrugated, mind occupied about his affairs and relations, and good pulse.

October 17. 8, A. M. Continued warm and comfortable all night ; has been free from cramp and vomiting since the first injection. Dejections are frequent, small, thin, colorless, under his control, and preceded by a little griping. No other pain. Skin is warm, soft, elastic ; face of good color and expression. Respiration 36, costal, regular. Voice distinct, modulated, a little husky. Pulse 136, regular, more strong in left arm. Tongue is yellowish, dry, dotted red at tip and edges. Apply a blister six by five to abdomen. Coffee and tea in small quantities.

1, P. M. Dejections are frequent, occurring every half hour, thin ; the four last are of fæcal color, and somewhat fæcal smell. Says that he has just passed a very little urine. Other symptoms as at last visit. Arrowroot.

3, P. M. Has had three dejections, thin, more fæcal. The countenance is not so easy, the eyes are more sunken. Respiration less regular. Pulse 136, not so firm. Thirst great, but not urgent.

5, P. M. No pain but from the blister, which has drawn well. No dejection. Has vomited, the first time since the first injection, a gill of thin, colorless, inodorous fluid; he says it is the arrowroot. Countenance less natural; voice more husky. Right hand very cool, and the pulse less strong than in the left. Respiration 36, irregular, occasionally a deep inspiration. Pulse 136, feeble. Great desire of cold drink. Omit the arrowroot. Let him have a fluid-ounce of porter every half hour.

10, P. M. Surface warm; circulation active in capillaries of the skin, and veins of the extremities. No pain; no headach. Countenance better. Eyes patient of strong light. Says that he had a buzzing in his ears all day yesterday, but not any to-day: remembers the first injection, but not the second. The mind is collected, active. No dejection. Urgent thirst. Tongue more moist, edges less red. Respiration regular. Pulse 128, full and firm.

R. Pil. Hydrarg. gr. ij.

Saponis gr. ij.

M. ft. pil. sumend. horis singulis.

If the bowels are moved, substitute the following:—Pil. Hydr. gr. ij. Opii. gr. 1-5. Dress blister with Ung. Hydrarg. Porter 3ss. every hour; if any headach, omit it. Cold water frequently. Perfect quiet.

October 18. 5, A. M. One thin, fæcal dejection. The skin, particularly of the extremities, of a pink color. Conjunctivæ injected; pupils contracted. Has had some quiet sleep. Pulse 120, regular. Thirst urgent. Pergat.

9, A. M. Two thin dejections of natural color and smell. No pain. No corrugation of the skin. Dark areolæ continue around the eyes. Fur on the tongue is looser. Pulse 116, firm. Continue Pil. Hydrarg. cum Sapon. Omit the porter.

1, P. M. No dejection. Countenance very good, but for the areolæ round the eyes. Pink color of hands and feet continues. Pulse 116. Pergat.

5, P. M. Two small, thin, fæcal dejections. Has vomited, once, some of the liquid taken; says that it was caused by wind. No headach. No abdominal soreness. Areolæ less dark. Respiration 20. Pulse 112, regular. Edge of tongue less red. Pergat.

8, P. M. No change. Gets some quiet sleep. Contin. Pil. horis secundis. Soda water, 3j. horis sing. Let not the sleep be broken on any account.

October 19. 3, A. M. At 9, P. M. discharged urine, and had a large dejection; and again both excretions at 2, A. M. Is sleeping. Respiration 20, quite natural; but with some force and sound in expiration. Pulse 104. Pergat.

9, A. M. Three thin, bilious dejections. Has vomited thrice, about three gills of bile. Has discharged a pint and half of clear urine. No pain. Countenance good; areolæ much less marked; con-

junctivæ less injected ; pupils of natural size. Skin of proper temperature. Yawns at times. Respiration natural. Pulse 96, firm, compressible, of good volume. Tongue soft, dryish, cleaning. Less thirst. Omit. pil. Continue soda. Beef-tea 3 ij.

12, M. Rejected the beef-tea 15 minutes after taking it. Discharged a pint of urine at once. Vomited a pint and half of bile at four times. Two bilious dejections. Countenance less bright. Feet not warm. Pulse unchanged. Omit beef-tea and soda water. Cider 3 iss. every hour.

5, P. M. Has taken six ounces of cider. Has passed a half pint of urine, a little cloudy. Has vomited six times, a pint of bile with a little mucus. Five bilious dejections, measuring a quart. Has hiccoughed a little. Complains of distress at epigastrium. Nausea for a short time before vomiting. Countenance haggard ; large areolæ about the eyes. Skin of just comfortable heat. Speaks in a whisper ; can produce voice by an effort. Tongue warm, dryish. Pulse 132, feeble. 3 ss. of punch every half hour.

R. Sodæ Supercarb. gr. xij. Aquæ 3 ij.

Give 3 ss. of the solution every fifteen minutes.

9 1-2, P. M. Is still more sunken ; extremities are cold, and fingers bluish. Has vomited three times, a small quantity of bile. Six scanty, bilious dejections. Respiration laborious. Pulse 140, small, weak. He is hiccoughing.

A grain and half of opium was given ; and with the assistance of Drs. Ware and Hale, arrangements were made to inject a saline fluid into the veins. Before proceeding to the operation, his pulse was found to have become larger and less frequent, his skin to be warmer, and his dejections to have ceased. He had now taken the opium forty minutes ; and it was determined to continue the opium and brandy so long as this amendment proceeded. Repeat the pill at 11, P. M. ; and if any hiccough, or vomiting, or purging, again at 12. Give a teaspoon of brandy in two teaspoons of cinnamon water, every fifteen minutes. External warmth.

2, A. M. Report by Dr. J. B. S. Jackson. Has slept, waking often to ask for drink. Hiccough has been frequent. Hands are warm ; the nose is cold. Sleeps, breathing as if fatigued. Pulse 110, fuller and stronger in both wrists ; very distinct in the left.

Soon after this report, he began to sink further ; and died at 7, A. M.

The body was examined eight hours after death, in presence of Drs. J. Jackson, Channing, Homans, Ware, Hale, and J. B. S. Jackson. *Muscles* rigid. *Face* much sunken ; fuliginous ; very large and dark areolæ round the eyes. *Lungs* much collapsed, crepitant, contained much dark blood. Small old adhesions at apices. *Heart* of ordinary size ; the left side empty ; the right side filled with dark, liquid blood. *Aorta* and *vena cava* full of dark thin blood. *Peritoneum* dryish. *Stomach* thin, flabby, contains a gill of bile. The mucous membrane of natural thickness and firmness ; very red in checkered spots, which at first view represented ecchymosis ; but when the membrane was stretched, the redness was seen to be in the vessels. Mucous membrane of *duodenum* very red. In *jejunum* mucous membrane slightly injected, of natural firmness, in some parts covered with a custard-like or creamy lining.

Ilium contained a gill of thick fluid, like porridge, of light brown color. Its mucous membrane universally red, and at the upper part coated with mucus. At the lower part the membrane was soft, dark-red, clean; the congregate glands enlarged; the solitary glands were very red, greatly enlarged, rising above the level of the membrane like warts. The *large intestines* of ordinary thickness; the mucous membrane of a pale red color, clean as if washed, but not looking soaked. *Liver* mottled on the surface; natural within; gall bladder full of bile. *Spleen* small, firm. Pelvis of *kidney* contained a small quantity of creamy matter. *Bladder* of ordinary size.

Observations.—This patient lived nearly four days after asphyxy and other signs of collapse were so complete that the many physicians who saw him believed that he would die in three or four hours. From Tuesday night, the time of the second injection, to Friday forenoon, he grew steadily better; the natural secretions returned; and strong hope was had of his recovery. It is plain that this amendment is to be ascribed to the injection; and the history of the case is much in favor of the operation. For it roused him from the desperate state of collapse, and at least gave time for the return of the healthy functions. The man, however, was of delicate frame, feeble constitution from childhood, and with health impaired by sedentary habits. When the natural actions returned towards the close of the third day, they became excessive; the urine, which had been suppressed three days and a half, was secreted in the quantity of four pints and more, in 18 hours; discharges of unmixed bile by vomiting and purging occurred almost every half hour; and the patient died at length, exhausted, with bilious cholera. It is to be considered how far this excess of action was produced by the mercurial and the stimulants, the exhibition of which preceded it: probably the chance of complete recovery would have been greater, had the ingesta been limited to mucilages and diluents. The pink color of the skin, particularly in the extremities, was quite remarkable. If it arose from the brightness given to the color of the circulating mass by the admixture of the salts injected, it would show that too much was thrown in. If it is a sign of hyperæmia of the capillaries, or their inflammatory condition, produced by the presence of offensive foreign matters (in the language of the nascent pathology an error loci occurring, and the sharp spicula of the salts distending and abrading the small vessels), then we should keep in view the occurrence of the same state in the internal mucous membranes, and be ready to remove it by the abstraction of blood or other more proper means.

Boston, October 22, 1832.

NOTE.—The bright pink color of the extremities is very similar to that which attends the restoration of warmth to hands which have been very much chilled; and it has been suggested that the cause may be the same. Since the date of the communication, I have had an opportunity of seeing three cases of injection into the veins, in which warm water, without salt, was thrown in. The pink color did not show itself in any one of them. I have observed five cases of saline injection; the redness was more or less remarkable in four; its presence in the fifth case is not known, as the patient was not seen after the operation. In one of these cases, the first in which the remedy was employed in this city, the surface in the vicinity of the orifice in the vein became colored a bright crimson after a few strokes of the piston, and the redness was gradually diffused. These facts make it probable that the color is owing to the presence of the salts in the blood.

October 29.

J. G. S.

Monthly Notice of New Publications.

WORKS ON THE CHOLERA.

1. *Facts and Observations upon Spasmodic Cholera, addressed by the Board of Health to the Inhabitants of the City and Banlieu of Quebec, as well as of the Province generally.* Quebec. 1832.
2. *Information for the People on Cholera ; including a Sketch of its History, Symptoms, Preventives, and Treatment.* Philadelphia. 1832.
3. *Hints to the People on the Prevention and Early Treatment of Spasmodic Cholera.* By C. R. GILMAN, M.D. New York. 1832.
4. *Remarks on the Cholera, embracing Facts and Observations collected at New York, during a visit to the City expressly for that purpose.* Providence. 1832.
5. *Report of the Committee of the Kappa Lambda Society, appointed for the purpose of preparing an Account of the Mode of Treatment of Epidemic Cholera.* June. Together with an Additional Report, presented August 15, 1832. New York. 1832.
6. *The Cholera Spasmodica, as observed in Paris in 1832 : Comprising its Symptoms, Pathology, and Treatment. Illustrated by Cases.* By ASHBEL SMITH, M.D., of North Carolina, officially attached to the Necker Hospital, during the prevalence of this Epidemic. New York. 1832.
7. *Cholera, as it recently appeared in the Towns of Newcastle and Gateshead ; including Cases illustrative of its Physiology and Pathology, with a view to the Establishment of sound Principles of Practice.* By T. M. GREENHOW (of Newcastle upon Tyne), Member of the Royal College of Surgeons in London, &c. &c. &c. Philadelphia. pp. 168. 1832.
8. *Sketch of the Progress of the Malignant or Epidemic Cholera, from its Arrival in America. With Tables illustrative of its Progress in the principal Cities it has visited.* By EDWARD WARREN, M.D. Boston. 1832.
9. *A Treatise on Epidemic Cholera ; including an Historical Account of its Origin and Progress, to the present Period. Compiled from the most authentic Sources.* By A. BRIGHAM, M.D. Hartford, Conn. pp. 368. 1832.

It will not be the fault of the present race of physicians if posterity should obtain an inadequate idea of the history of the existing epidemic. At a time when men of science are peculiarly disposed to devote themselves to the task of improving and instructing the public, this propensity in the medical profession has taken almost exclusively the direction of Cholera. The medical pen has been, for the last two years, teeming with productions on this subject ; and we still go on, with unabated vigor and industry, adding to the number. Probably not less than two hundred works on Cholera, including pamphlets, have been published in England and on the European continent, during the prevalence of the disease there. At present, the mania for publication seems distinctly transmitted to this country, and we already rival our transatlantic friends in fertility on this topic. For our own part, we can say that our table is already covered with pamphlets of every variety of dimension, devoted to this all-absorb-

ing topic. To do justice to all of these within the narrow limits of our Journal, would be impossible. Those whose titles stand at the head of this article having been sent us for this department, we trust that a passing notice will not prove unacceptable or useless.

1. To commence with the smallest—The ‘Facts and Observations’ go to show that the Board of Health of Quebec were not wanting in the discharge of their duties to the public; but that the best information was furnished by them, as to the means of preventing the disease from gaining ground among them, and with regard to the treatment which should be adopted. That these precautions did not prevent the ravages of the destroyer, is no argument that they were useless or ineffectual. The recommendations which are here contained, particularly with regard to clothing, diet and ventilation, are judiciously conceived and simply expressed, and may well be believed to have had an influence in mitigating the horrors of a visitation which they could not avert. Some of the directions in regard to treatment, are indeed of questionable propriety; and the preference given to the actual cautery as a remedy, was scarcely justified by the existing testimony on this subject. With very few exceptions, however, the directions contained in the work do equal credit to the sagacity and the benevolence of the respectable body from which they emanated.

2. The ‘Information’ professes to give a sketch of the history, symptoms, preventives, and treatment of cholera; and considering the space allotted to each of these subjects, it is surprising how much the author has contrived to say upon all. There runs throughout the whole a strain of practical good sense, which adapts it very well for popular use. Like most works, however, written on medical subjects for general readers, it displays here and there an unnecessary parade of learning, and announces common-places with an air of importance which borders on the ludicrous. Among other helps to the uninitiated, we have at the conclusion of the work a lexicon of medical terms, of which three may serve as a specimen. ‘*Nosonitives* are those things which produce disease. *Therapeutics* are those things which restore health. *Fever* consists in a morbid condition of the ganglionic system.’

We should apprehend, that the people for whose benefit the work is intended, would be more likely to be acquainted with fever than with the functions of the ganglionic system. The practical directions, however, are judicious, and are calculated to meet and correct many of the popular errors which have prevailed in regard to the disease.

3. The ‘Hints’ are well named. It is, in fact, a series of short sayings, but much to the purpose. It is done in a fair type, that he who runs may read; and keeping clear of long words and perplexing arguments, touches concisely on all points which are interesting to the people at large. The two great objects of the work are stated to be the prevention of the dis-

ease if possible, and the cure if needed. The means of prevention are either public or individual. Among the public measures for this purpose, are principally quarantine regulations, which, according to the author, experience has proved to be wholly useless, from the impossibility of their being strictly enforced. The feasible means of prevention are, 1st, cleansing the streets—2d, cleaning the houses of the poor—3d, personal cleanliness—4th, the regulation of the diet. Under each of these heads, Dr. G.'s remarks are clear and judicious. His prohibition of ardent spirit is absolute, as it ought to be, giving no encouragement to any quantity, however small, habitually used. Perhaps he may not be so correct in condemning those authorities abroad, and particularly in Paris, who recommend the moderate use of weak brandy and water. Where the water is impregnated with many impurities, as is the case in that city, the addition of the stimulus may be the least evil of two. Dr. G. concludes with a few words of general advice to those who have the charge of cholera patients, which are by no means inapplicable to other occasions.

4. The 'Remarks' purport to be the work of a Providence physician, who went to New York for the express purpose of studying the disease. It contains, what we have not seen elsewhere, an account of the various modes of practice pursued at the different Hospitals.

5. The 'Report of the K. L. Committee' was prepared in June, previously to the appearance of cholera in New York. It seems to have been principally founded on the statements contained in the printed works to which the reporters had access. A postscript is appended to the report, containing such modifications of their previous views as they were led to adopt after having seen the disease. On the whole, the pamphlet can hardly be considered as possessing any interest at the present time.

6. The character of Dr. Smith's book entitles it to a more extended notice. The author was officially attached to the Hospital Necker, in Paris, during the prevalence of the epidemic; and there appears prefixed to the present work, a testimonial by the physician of that establishment to the zeal and fidelity with which his services were performed. Dr. Smith's description of the disease is one of the most full and vivid that we have seen from any source. The symptoms are described with singular minuteness, and in the most glowing language. It is remarkable, too, how precisely every circumstance which he mentions has been verified on the patients affected with the disease here. Among the characteristics mentioned by Dr. S. which have not so particularly been noticed before, are the deafness, accompanied with a sound of blowing in the ear, and ecchymosis of the conjunctiva below the transparent cornea. The latter symptom we have noticed, particularly in two cases which terminated fatally here; but it appears to us that it came on within an hour before death. We have observed, accompanying this, a depression of the sur-

face of the cornea itself, presenting the appearance of ulceration, which has progressively increased in extent till death, and even for some time after, so as finally to occupy from one third to one fourth of the surface of the cornea. Under the head of treatment, Dr. Smith makes some very sensible remarks on the use of hot air in the stage of collapse. His experience led him to believe, that when the temperature was raised considerably above blood heat, the patient suffered great inconvenience, and was quickly exhausted. He conceives that in cases of impeded respiration, the contact of a comparatively cool air is required, in order that the skin may perform in a degree the function of the lungs in oxygenating the blood. We have noticed, in one or two cases, the uneasiness to which Dr. S. refers, produced by heated substances or hot air applied to the skin, even when to the hand it conveyed the sensation of deathly coldness; but that this was connected with any chemical influence exerted by air on the blood, is an idea which did not before occur to us. Dr. S. mentions that, under certain circumstances, advantage was obtained from frictions with ice—a treatment which was suggested by the analogy between the state of the body in this disease and that produced by freezing. We have also, in an appendix, a detailed account of a few cases, drawn up with great apparent care and accuracy. In fine, we regard this little work as one of the most interesting publications on the subject which we have met with.

7. Mr. Greenhow, whose name stands next on our list, and who is a practitioner in Newcastle upon Tyne, has given us 132 pages on the cholera, besides an appendix. Fifty pages, rather a large proportion, are taken up with details of cases; the remainder consists of Dr. Greenhow's observations. Dr. G. views cholera as presenting four degrees of severity. The three first include cases with vomiting of bilious matters or ingesta, with slight cramps or none, and manageable by the usual remedies; such cases, in fact, as have here been referred to common cholera. This view of the case will serve to explain a fact otherwise inexplicable; that the reputed mortality of the disease, in Newcastle, is less than in any other place where the disease has shown itself. It appears that of 118 cases admitted into hospitals, 70 died, and 48 recovered; while in private practice, of 1330 cases, only 437 were fatal, while 893 terminated favorably. In speaking of the treatment, Dr. G. mentions three remedies which he considers as having claims to be considered as new. These are the mustard emetic, large injections of warm fluids into the rectum, and the tobacco enema. With regard to the efficacy of the two first, we have no hesitation in adopting implicitly the opinions of the author; of the advantage to be derived from the third, notwithstanding the encomiums bestowed on it by Mr. Baird, there is great reason to doubt. The analogy observed between the state of collapse in cholera, and that produced in miners by choke-damp, is very striking; and the observation is one of the most interesting contained in the work.

8. This 'Sketch' exhibits, on the part of the author, a commendable industry, but contains some inaccuracies that detract from its value. Of the tables, we can offer only a general abstract. In Quebec, the whole number of deaths from June 8 to September 2, is estimated at 2218. In Montreal, from June 10 to August 18, total cases 4304, deaths 1727. In New York, from July 5 to August 29, when the daily Reports of the Board of Health were discontinued, total cases 5835, deaths 2251. In Albany, from July 1 to September 1, total cases 1104, deaths 389. In Philadelphia, from July 16 to August 31, total cases 2225, deaths 740. In Baltimore, the deaths from the commencement of the disease were about 600, and in Washington about 178.

9. We have yet to notice the work of Dr. Brigham, which, as is evident by the title, embraces a complete account of the disease, from its origin to the present time. In the historical part, Dr. B. assumes no other credit than that of having made a compilation from the best and most accurate authorities, and to this we believe he is fully entitled. The work presents, in fact, the most complete history of the progress of the cholera which we have yet seen, and being prepared for the most part from original documents, presents the highest claims to confidence. From the history of cholera, the author comes to the post-mortem appearances. His remarks on the very great diversity observed in these appearances, are perhaps true, of dissections performed in different parts of the world, the accounts of which, when compared, do not accord very exactly. But considerable allowance ought to be made, in instituting such a comparison, for diversities in modes of expression, and the defects necessarily incident to translated language, which, when applied to natural objects, causes a much greater apparent difference than really existed in the objects themselves. On the other hand, it will be found, that during the prevalence of the epidemic in any one place, where the conventional modes of expression are similar, and where practitioners have the opportunity to agree on the terms for designating particular appearances, the results of post-mortem examinations are remarkably uniform. In the cases which we have had an opportunity of witnessing in this place, as well as in those which we have seen described by others, the state of the mucous surface of the intestines, the character of the matters found within them, the quantity, color, and consistence of the blood found in the vessels, have presented a degree of similarity which we are satisfied cannot be equaled by the accounts of dissections in any other disease.

In regard to the *rexata questio* of the treatment of cholera, the author appears, with great labor and diligence, to have collected all the various remedies which have from time to time been suggested, and to have arranged them under their respective authorities. Even the homœopathic treatment, of three drops of camphorated spirit every three hours, is not omitted. There is too much similarity, however, as has been justly ob-

served on this subject, in the results of all these different modes, to believe that any has exerted a very material influence on the course of the disease.

Dr. B. then gives us two lectures delivered by Broussais in Paris, in which that singular genius applies his physiological theory to this malady, and rails at English treatment, calomel and opium, frictions and stimulants, in no measured terms. He then comes to the causes of cholera, and discusses, in a very fair and candid spirit, the question of contagion. This is indeed the most elaborate portion of the work, as it is that in which the author was most called upon for the unaided exercise of his own powers, in the arrangement and application of an immense mass of scattered observations and facts. With regard to his conclusion, we shall say but little in this connection. We are perfectly willing to concede to the opposers of contagion, that the disease may be, and is, propagated by various means ; but that contagion, or emanations from the bodies of the sick, affecting the atmosphere, is not among these means, will scarcely be maintained by those, who, uninfluenced by prejudice, are willing to admit the fair inference from existing facts.

We have already extended this article so far, as scarce to have room to touch on the other topics embraced in Dr. B.'s treatise, many of which are of great and permanent interest. We will only conclude, therefore, as we commenced, by congratulating the medical profession and the public, that the spirit of philosophical investigation is so thoroughly awakened among us, and is enlisted with so much zeal and earnestness in the examination of a subject, than which none in the present age presents more material for vigorous research and careful inquiry.

A Practical Guide to Operations on the Teeth. To which is prefixed a Historical Sketch of the Rise and Progress of Dental Surgery. By JAMES SNELL, Dentist, Member of the Royal College of Surgeons, &c. &c. Philadelphia: Carey and Lea. 1832.

THIS is an excellent manual, not only for the dentist, but for those who resort to him for assistance. It teaches or reminds the former what he ought to do, and how to do it in a manner the most thorough, and the easiest both for himself and his patients ; and it informs the latter what he has a right to expect at the hand of an accomplished operator on the teeth. The high fees of the dentist are a subject of common conversation in this, and almost every other city, and not unfrequently the object of bitter complaint. They are certainly high, and usually, if not universally, paid, as all fees should be, when the service is completed. There is no trouble of charging, in most cases, no commissions to the collector, no discounts required, and few bad debts ; so that, on the whole, no professional men are better paid, the physician surely not half so well, as dentists. Most of them support their families with ease—many in affluence. But we hold that such fees are richly merited by the operator who ac-

compleishes his work in the skilful and thorough manner described in the book before us ; and when rising from such operation, the patient has his full *quid pro quo*, and has no just cause of complaint, but much of gratitude.

Dr. Snell, after a rapid review of the history of medicine, particularly in relation to operations on the teeth, offers a few remarks on the importance to the dentist of having a chair so constructed as to promote the ease and elegance of the operations performed, and the comfort of the patient. In this, as well as every other part of his book, Dr. Snell has not stopped after throwing out general recommendations. He complains of all his predecessors who have issued treatises on Dental Surgery, except Mr. Bell, that they have kept back the most valuable part of the knowledge they have pretended to communicate. 'Much is proposed,' says he, 'but little performed ; and after the author has very liberally abused all other professors, and confidently announced that he alone is the man, and that "wisdom will die with him," the reader finds an intimation at the end of each chapter, that if he wishes to know the author's method, he must go to his residence (as a patient), where he will be enlightened in all the mysteries of the art.'

The chief excellence of the present work is the minuteness with which it describes the whole art and its appurtenances. The chair used by the author, and said by him to be superior to any other he has known, is fully described, and explained, and represented in a plate. It differs from any we have seen, and appears to possess several advantages, which we have only time and space to recommend to the notice of those more particularly engaged in this branch of surgery.

In the next chapter is an account of the different modes of extracting teeth, and the progress of improvement in this art, from the time of Ambrose Peré, who advises that 'a tooth-drawer should be expert and diligent in the use of his tooth mullets, for unless he knows readily and cunningly how to use them, he can scarcely so carry himself but that he will force out three teeth at once, oftentimes leaving the one untouched which caused the pain.'

The author, in an extensive gratuitous practice, has had opportunities for trying all the instruments that have been proposed for extracting the teeth ; and states explicitly, but with delicacy, the results of his own experience with them. He gives his unqualified preference to the ancient forceps, new fashioned, over the much-used key, and condemns very justly those machines that have from time to time been proposed for extracting the teeth perpendicularly. In both these opinions, he is supported by those of the best dentists of the time ; and it is not a little singular that after so many ages, and so many inventions, we should come back to the instruments originally used for this purpose. The precise form of each forceps, with which the operator should be furnished, and the mode in which

each should be used, are clearly and minutely described. Since, however, the use of the forceps requires an experienced hand, a species of key is recommended for the general practitioner, and such plate given of it as will enable an artist to construct one without further description.

Several remarkable accidents, that have resulted from the extraction of teeth, are briefly related, with the modes of guarding against or treating them. Descriptions follow of the various operations of brushing, filing, stopping, fastening, and scaling the teeth ; and the instruments, powders, cements, &c. required, and the best modes of using them. From the chapter on *scaling* or cleaning the teeth, we offer the following extract, as a specimen of the style and spirit of the work.

The operation termed scaling is performed for the purpose of removing from the teeth a substance, very improperly denominated tartar. This substance is deposited by the saliva, and consequently the greatest accumulation takes place upon those teeth and those parts of them which are situated nearest to the mouths of the salivary ducts, viz. the back part of the front teeth in the lower jaw, where the canal from the gland empties itself, and also the outer surface of the molares of the upper jaw. Nothing is more destructive to the health of the teeth and gums than this concretion. * * * * *

I shall first describe the operation of removing the tartar, and next the simplest method of cleaning the teeth without injuring them.

The instruments sold in the shops as scaling instruments, are without doubt the most awkward things for the purpose that can be conceived. Nothing can be worse calculated for effecting the proposed object with either ease or elegance. The principle points to be regarded, to produce as little inconvenience to the patient as possible in performing the operation of scaling, are to remove the tartar lightly, although perfectly, without jarring or using force, and without injury to either the gums or teeth. To attain these objects, the operator must possess suitable instruments, a light hand, a good eye, and a certain mechanical tact in the use of the instruments that can be acquired only by practice. Several instruments are requisite for removing the tartar, and particularly the six which I am about to describe. For the anterior part of the incisores, an instrument is sold in the shops, of a diamond shape, or spear pointed. The one which I use and would recommend, is of a somewhat different shape, being about a quarter the breadth, and slightly turned up at the point, and the back of the instrument rising to an edge, instead of being flat. The instrument should be of the best steel, and capable of taking a good edge ; not that of a knife, but that of a scraper, so that when used as one, the edge will not be turned. With this instrument the tartar on the anterior surfaces of the teeth should be removed, by placing its cutting edge between the edge of the gum, and the under surface of the tartar, with the thumb or fingers of the left hand (according to the tooth operated upon) on the cutting edge, that the tooth may not be jarred. In some cases, the tartar will fly off in scales with the slightest pressure ; but occasionally it adheres so strongly, that there is considerable difficulty in detaching it. This has led to the use of solvents to assist the instrument ; and for this purpose powerful acids are proposed. The danger of such a practice is evident. Acids will of course have the same action on the enamel of the teeth that they have on the tartar, and consequently the former substance

will sustain injury. I shall have occasion to speak further upon the subject of applying acids to the teeth in another place ; but it is necessary here to state, that however tightly the tartar may adhere, there is no occasion for the use of these agents to destroy it. With a little care and tact in the operator, it may be removed with ease and safety. From the posterior part of the front teeth, where the tartar at all times gathers most thickly, a pair of instruments are requisite, one for the right hand and another for the left, instead of the awkward triangular one sold for that purpose. It is difficult to describe the exact bend that these instruments should have, as also their shape. The blade part should be similar to the one before described to the anterior surface of the teeth, but considerably smaller and more turned up at the point. The right hand instrument cleans the left side of the teeth, and *vice versa*. After having removed the tartar from the anterior and posterior surfaces, a thin flat instrument should be passed in between the teeth to remove the tartar between their interstices. Two or three of this kind should be procured, varying a little in shape, breadth, &c., for cases where the teeth are irregular, or otherwise awkwardly situated. The insides of the molar teeth require also a pair of instruments, right and left, of a different shape from those used for the front teeth, being much broader, cutting on one side only, and the shaft of each instrument bent in such a direction as to render it most convenient for the part it has to perform. These six instruments are essential ; others, however, are occasionally required. I trust I am one of the last persons in the world to seek to elevate the profession in the eyes of the multitude by surrounding it with mystery, or to claim a superiority over my professional brethren, founded on the possession of a great variety of instruments ; yet I am compelled to say that although those which I have named would in general answer the purpose of removing the tartar, if the dentist were possessed of no other varieties for this purpose he would be but indifferently supplied. The convenience of having instruments for the right and left hand side of the mouth, will, I think, be obvious. It is, I believe, a new method. I have never seen it in use, nor heard of its being employed, either for removing tartar or for extracting teeth. Although I lay a claim to the invention of these right and left hand instruments, I do so as all men in the present age of mechanical improvement ought to do ; with the admission that although I may never have either seen or heard of such instruments, yet that amongst the many scientific men which it may be presumed our profession contains, it is not improbable they may have been already introduced. After having removed all the tartar which can be got off by the instruments, it will often be found that the patient complains of the back part of the teeth being rough to the tongue, and the portion of tartar left will form a nucleus for further deposits. If the teeth are left in this state, they will require but a short space of time ere they will be again encrusted as plentifully as ever, to say nothing of the inconvenience which the patient will experience for some days after so imperfect an operation. Recourse must now be had to the magnifying mirror, before described. All the tartar thus rendered visible being removed, if the patient still complains of roughness, an instrument shaped as a scraper and suitably curved for getting at each part of the tooth, should be used ; after which, should any roughness still remain, the teeth must be carefully rubbed with a piece of fine wood, of a suitable shape, dipped in finely levigated pumice, or rotten stone, and afterwards well brushed with a pointed brush inserted at right angles into the handle.

During the operation, the patient should repeatedly rinse the mouth with lukewarm water, impregnated with Eau de Cologne, or any other aromatic spirit. In some instances, the teeth will be so loaded with tartar, that it is unsafe to remove it all at one time. Where this is the case, that part which is nearest the gums should be first removed, so that they may be thoroughly relieved. This being accomplished, the patient should be desired to use some proper application to the gums for a week, which will tend to their eventual restoration. The following lotions may be used : R. Aluminis ʒiss. Tinct. ratane, Tinct. kino, āā ʒiss. Mist. camphoræ ʒiss. Misce. R. Decoct. quercus ʒiv. Vinum rubri ʒij. Misce.

Where the gums are not much inflamed and are spongy, the vessels should be relieved by free incisions with the lancet, or leeches may be applied, and this lotion used :—R. Decoct. hordei. comp. ʒviij. Potassæ nit. ʒij. Misce.

Nothing tends more to create a healthy action in the parts, than relieving the overcharged vessels. If the inflammation should not be subdued in a few days, the lancing should be repeated. When they are somewhat relieved, and the teeth show signs of fastening, the remaining tartar should be removed, either at one or more sittings, until the teeth are perfectly freed from it, and no roughness is felt to the patient's tongue. After the tartar is removed, the teeth are often of a dark lead color, and this cannot be remedied by instruments. The general way of improving the appearance of the teeth, is by applying some one of the mineral acids with a camel hair brush ; and amongst many dentists this, which is termed making the teeth white, is the invariable termination of the operation of scaling. By the improper use of acids, that beautiful polish natural to the enamel is injured ; and where the application is repeated, layer after layer is removed, until the enamel is totally destroyed or honey-combed. Pits and spots of brown appear, and the teeth become morbidly sensible to changes of temperature, pain being produced from cold air or water. This state cannot long exist without inflammation attacking some of the teeth, and premature decay is the consequence. Considerable improvement may be effected without any improper use of acids ; but it must be laid down as a general rule, that no teeth ought to be made whiter than their natural color ; any attempt to surpass this will be dangerous. All extraneous particles, all stains, spots, &c. having been carefully removed, the surface of the teeth should be polished ; this may be done without the slightest danger. It will be found that in proportion to the height of their polish, the aptitude to become discolored is diminished. The method of polishing I shall describe. After all extraneous particles are removed, as far as they can be with instruments, the teeth will not unfrequently present a filthy appearance, by being covered with a dark brown, black, or green fur. This must be removed with a small piece of soft, tough wood, cut to a convenient shape, dipped into extremely fine levigated pumice stone, with which the discolored part should be rubbed, until the stain disappears ; after which the teeth, on the part before acted upon, should be polished with some testaceous powder. This method requires a little time ; but the reward is equal to the labor, as instead of leaving a surface, which although white is rough, and consequently prepared for the adhesion of the first coloring matter contained in the food, a surface highly polished is obtained, the teeth are left just as white as nature ever intended they should be, and rendered less susceptible of again becoming discolored.

Familiar Lessons in Mineralogy and Geology, Designed for the Use of Young Persons and Lyceums. In two Volumes. By JANE KILBY WELSH, Author of 'The Pastime of Learning, with Lessons in Botany.' Volume I. pp. 404. Clapp & Hull, Boston.

In addition to the works thus far noticed in the present number of this Journal, we have received for examination a handsome duodecimo bearing the above title. This volume contains lessons in Mineralogy and Conchology, written in a familiar style, suited for family use, and illustrated by about 80 engravings. The fair author of this manual has gathered information from sources the most authentic, and given it a form that cannot fail to be inviting to the mind of the young. Already well known, and having done a share of service to the rising generation by her illustrations of vegetable nature, she will fix still more firmly the foundation of her fame by these more profound investigations. The science of Botany is rendered familiar and attractive, more easily than that of Mineralogy; the phenomena of life afford, in the former, almost exhaustless sources of variety and beauty, by which the interest of the reader may be kept alive. In the present volume, Miss W. has exhibited a happy tact in accomplishing the same object, in a branch of science in which she had not their aid. We hope she may attempt, at some future period, the easier task of a similar work, in which sensation as well as life will furnish material for her descriptions.

The Cholera Asphyxia of New York. By MARTYN PAINE, M.D. pp. 160. New York.

THIS excellent volume consists of Dr. Paine's letters on the cholera recently published in this Journal, with several others of equal interest and value. We regret that the late reception of this work, and the want of room, must prevent our doing anything more than recommend it to the reader.

The favors of Drs. North and Allen were duly received.

Whole number of deaths in Boston for the week ending Oct. 27, 45. Males, 28—Females, 17.
 Of convulsions, 3—cholera malignant, 14—disease of the heart, 1—old age, 2—consumption, 5—lung fever, 2—croup, 1—mortification, 1—marasmus, 1—diarrhœa, 2—burn, 1—typhous fever, 1—intemperance, 1—dropsy on the brain, 3—teething, 1—accidental, 1—dysentery, 3—fever, 1—scarlet fever, 1—hooping cough, 1—drowned, 1.

ADVERTISEMENTS.

MEDICAL SCHOOL OF MAINE.

THE MEDICAL LECTURES at BOWDOIN COLLEGE will commence on MONDAY, the 18th day of February, 1833.

Theory and Practice of Physic, by JOHN DELAMATER, M.D.

Anatomy and Surgery, by REUBEN D. MUSSEY, M.D., Professor at Dartmouth College.

Obstetrics and Medical Jurisprudence, by JAMES McKEEN, M.D.

Chemistry and Materia Medica, by PARKER CLEVELAND, M.D.

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Degrees are conferred at the close of the Lecture term in May, and at the following Commencement of the College in September.

Boarding may be obtained in the Commons Hall at a very reasonable price.

Brunswick, October 3, 1832.

Oct. 31. cop5t.

P. CLEVELAND, Secretary.

THE
BOSTON MEDICAL AND SURGICAL
JOURNAL.

VOL. VII.] WEDNESDAY, NOVEMBER 7, 1832. [NO. 13.

MALIGNANT ASTHENIA.

Remarks on Epidemical Malignant Asthenia. By ELISHA NORTH,
M.D. of New London, Conn.

[Communicated for the Boston Medical and Surgical Journal.]

AN opinion has originated in the minds of men, that a new disease, *sui generis*, came into existence in Asia, about fifteen years ago ; that this malady has been propagated and kept in existence, by some hidden means, until the present time ; and that it has at last arrived in, and is now desolating our beloved country. This opinion has been extensively acted upon, both in this country and in Europe ; and by men even in high stations in government. The object of this essay is no less than to show that this opinion rests on no solid foundation in nature ; that it has originated in the timidity and mistaken views of mankind ; that the measures, which have resulted from it, have been fraught with much mischief, and that they have even greatly increased mortality from pestilence, both in Europe and in this country. If all this be so, it must be admitted that such an opinion, and the measures resulting from it, should be abandoned at once and forever. To command attention, I will state that the soundness of my own opinions has been put to the test of experiment, in this city, since the third day of March, 1832, to the present time ; and their beneficial effects made highly manifest to all intelligent persons, whether they be friends or foes.

When one first examines a thing, it is natural to compare it to something he may have previously seen or heard of. Hence those physicians who have witnessed spotted fever, may compare spasmodic cholera to it ; while those who have seen common cholera morbus, only, may imagine—on account of the name—that there is a resemblance to the latter complaint. Others, who may be unacquainted with spotted fever and cholera morbus, may regard malignant cholera as a disease, *sui generis*, that has come from Asia.

Let the inquiry be now made, what the resemblance is between spotted fever and malignant cholera.

1. Both these maladies too often occasion death, within forty-eight, or even a far less number of hours.

2. Unless death be the result, both may have, after reaction of our organization, a typhoid or consecutive fever, attended with more or less

danger. This fever usually is of the duration of one week, or even less. It may, however, continue longer. In light cases, the fever may resemble, somewhat, that of scarlatina.

3. Both are only contingently infectious, and very rarely even so. Both may, however, be occasionally propagated by sympathy, fear or terror.

4. Both may be made manifest in all seasons of the year, and in all climates. The highly respectable gentlemen, who made the Boston Report on Spasmodic Cholera, seem to be aware that there might be a similarity between that disease and spotted fever. They however suppose that the spotted fever was principally confined to New England, and to the winter and spring months. It appeared extensively in Berlin (Con.) in 1823, in June, July, August, September and October. (See the well-written account of Samuel B. Woodward, M.D. in the Boston Medical Journal for 1827.) It has probably been made manifest in almost every State in the Union. It has not, however, occasioned a dreadful public panic, until now. Physicians do not always publish what they witness; and if they should do so, their publications would not be read by every one. I suspect *malignant cholera* has existed in Montreal, in a sporadic way, long before the present season. I have seen this disease, or spotted fever, in a sporadic way, almost every year, in different seasons, since I have resided in New London. I know highly intelligent persons, who have witnessed the spotted fever, *both in this city and at Chapel Hill* in North Carolina, the spring and summer past.

5. Neither of these epidemics can be proved to have come from Asia, with any more certainty than that our crimes have been brought from thence. Making red lines on maps, and treating or regarding the disease as a personified being, moving about, does not prove such a position. It only deceives readers. In this view of the case, both diseases are alike.

6. Both are so insidious and multiform in their symptoms, taking all the cases into view, that they have been called by various names, and are very liable to be mistaken, by the inexperienced, for other diseases.

7. Patients affected with either have a general appearance, so much alike that non-professional persons cannot distinguish the difference; nor can young physicians. This fact has been lately well ascertained, both in New York and in New London.

8. I have myself seen many common and some mortal cases in both epidemics. To me these cases appeared very much alike. The testimony of my friend Dr. Perkins, of this city, is in favor of the general sameness of spotted fever and cholera; and his testimony is already before the public. This gentleman has seen much of both varieties of the pestilence. Thomas D. Lee, M.D. is of the same opinion. He has seen much of the pestilence, both in New York and in New London.

9. Both epidemics are somewhat modified in various locations and in different seasons. In proof of this opinion, as regards spotted fever, and also to show to the sceptical that malignant cholera had been made manifest in Connecticut so long ago as 1810, the following remarks are made. According to Dr. Bestor's account of spotted fever (see his Essay), he had seen patients—they were children, to be sure—between

1807 and 1810, or during that time, with the subsequent symptoms :— They had vomiting and purging, weak or bad pulses, ‘sunken and death-like countenances,’ and soon became comatose and then died, some of them within four hours from the attack. Those physicians, in wholesome Connecticut, who have witnessed diseases for forty years, without ever having seen death occasioned by the common cholera morbus of authors, will easily believe that those children had, *then*, what is *now* called Malignant Cholera ; although they might not have had their senses to the very last breath, and although we are not told that their discharges were of a rice color—that symptom, so long ago, probably did not command attention.

10. Both may be manifest, at the same places, *pari passu*, as is now the case at New London and at New York, and probably elsewhere.

11. Both depend on some hidden cause, or on unwholesome seasons. This globe is not, after all our wishes, perfect for the support of any kind of vitality. Some places are better, however, for such a purpose than others. We have occasionally bad seasons for vegetation, as well as sickly ones for mankind. Vegetables cannot, by the by, remove themselves from a sickly spot. Men can often do so ; or they can avoid residing in an unwholesome place—as a sickly city, or a sickly place in a city—if they have the means. Avoiding such a residence might often prevent sickness, although a temporary removal might not. The mental imperfection of persons often causes their death. The reason why some seasons are more sickly or unwholesome than others, is probably beyond the reach of human investigation. The remote *unknown* cause, or combination of causes, of epidemics, is a negative one, in my view of the case. There is no positive poison forced into our organization in such circumstances, but a want of suitable support.

12. Quarantine regulations are, in general, useless in both.

13. Post-mortem examinations have taught us little in regard to treatment, in either malady. In this respect we have a resemblance.

14. Both are sometimes attended with strong spasms. This symptom, however, probably occurs oftenest in the feeble inhabitants of warm climates. Diarrhœa has probably occurred of late, as a premonitory symptom, oftener than otherwise would have been the case, in consequence of a panic. This may be one reason why that symptom is manifest most frequently in those who are conscious that they may be fit victims for cholera.

15. Both select, in general, the feeble for victims ; and are suddenly attended with a great prostration in the strength of our whole organization.

16. Preceding diseases, as cholerine, influenza, measles, &c. may prepare the system for an attack of both epidemics, if they be two.

17. Both sometimes attack, suddenly, persons without any known premonitory symptoms.

18. Both assume in their progress many different appearances, and have many nervous symptoms. The cholera, in the north part of England and in Canada, when the patients recover, resembles the pestilence of New London, if not that of New York, more nearly than does the Indian cholera, or that on the banks of the Potomac, perhaps. The

attacks and deaths are more sudden, and the consecutive, typhoid, or congestive fever, is less frequent in India, than with us or in Europe. In these respects, the malady may vary in the northern and southern portions of our own country. Taking light cases into view, there may be less mortality in some climates than in others, because the proportion of light attacks may be greater.

19. Neither are very apt to leave organic complaints behind them ; although they may sometimes do so.

20. Both exhibit post-mortem appearances much alike, in a general view of cases. At Ceylon, in the East, the morbid post-mortem appearances in cholera are said to have been somewhat peculiar ; the brain was the organ most congested, while the liver appeared healthy. This appearance is somewhat like that described in the Boston Report on Spotted Fever, many years ago.

21. Blood drawn appears somewhat alike, and is sometimes obtained with difficulty, in both the cases in review.

22. Neutral salts, used as active cathartics, have been found highly mischievous in both cholera and spotted fever.

23. Both are characterized, in bad cases, with dreadful sinking of the whole sanguiferous circulation, with highly torpid and cold skins, and with somewhat cold and bloodless mouths.

24. Both have often great distress at the stomach ; and both may or may not have vomiting and purging, according to circumstances. The latter symptom does not always attend malignant cholera, as the name implies, and as many may suppose ; and it is sometimes an attendant on spotted fever.

25. Both make their principal attacks on different organs and parts of the body, and thus occasion modified morbid phenomena in different individuals ; and both may be modified by preceding chronic diseases, and by medical treatment.

26. Unpleasant sequela, as nervous affections, or a sort of disguised fever, may sometimes be consequent upon both maladies.

27. Neither are well described by very ancient authors ; probably because they were not witnessed by them. Why not regard them as one new pestilence ? Smallpox was once so regarded. There are two species and many varieties of smallpox. There may be two or three species and more varieties of the pestilence in review.

28. From the description of others, those who have often witnessed one disease, namely spotted fever, are easily led to believe that both exist in New York and elsewhere, at the present season.

29. Dr. Goodrich, physician to the Board of Health in Troy, N. Y. in a public report, says, that ‘intermittent fevers are rarely seen in Troy, except occasionally cases of foreign origin.’ He says, secondly, that ‘during the Spring and forepart of Summer of the present year, diseases approximating intermittent fevers, in some of their characteristics, and differing in others, were common and unusual for Troy ; so much so, that they excited the observation of the faculty at the time, and were subjects of professional speculation afterwards.’

Remarks.—Was not the disease, which occasioned so much speculation among the physicians of Troy, more near, in resemblance, to what

has been witnessed and described as a light and insidious species of spotted fever, than to intermittents, which are seldom generated in Troy? The first case reported to the Board of Health, in Troy, as a case of cholera, was on the 16th of July (1832), according to Dr. Goodrich. It was a fatal case. Has not our pestilence existed in Troy, the present season, in the form of what has been called spotted fever and cholera? (See Dr. Williamson's account of a disease in Baltimore, republished in my *Treatise on Spotted Fever*, about twenty years ago.) Again, Dr. Goodrich says, 'Physicians have remarked, for the last six or nine months'—these months immediately preceded September 8, 1832—'diseases in general have, in their early stages, indicated more than ordinary debility, and have not consequently allowed depletory means to the extent that was common.' Now similar observations were made and published by the physicians in Hartford county (Connecticut) more than twenty years ago, immediately anterior to the appearance of their spotted fever. (See the 'Essay on Petechial Fever,' by Dr. Nathan Strong, jun.) Again, Dr. Goodrich says, 'bowel complaints prevailed mostly among adults.' May not the reason for this somewhat novel fact, be that children are less under the influence of a pestilential panic than adults?

30. I have printed evidence, that leads me strongly to suspect that both forms of the epidemic existed in Montreal and at St. John's last April and May, near the precise time when the New London epidemic was at its height. There were two hundred cases of the pestilence in St. John's, and twelve deaths, according to Dr. Buckley of that place. This visitation, aside from the name, was no more terrific than our pestilence at New London. (See the Report of Drs. De Kay and Rhinelanders, to the Board of Health of New York.) Why should we be visited in New London with a pestilence totally different from other cities? Although New London is, in general, remarkable for its salubrity, yet we had, in 1798, yellow fever, that pest of American cities.

31. Both maladies have been treated in very distant places, and in distant times, very much alike, by a few persons, and with considerable success in both maladies. A somewhat sameness of treatment and general similarity of symptoms, prove a general nature belonging to a disease.

32. Both may have discolorations and even eruptions on the skin. This last symptom has not been recorded in cholera, except by one public witness, that has come to my knowledge. This symptom has probably not been attended to by the profession. An intelligent nurse from New London to New York has told me, that she had seen an eruption on a cholera patient in New York; and that she had seen two cases, while there, of what we in New London should call spotted fever. Dr. Perkins has authorized me to say, that he has seen one case of cholera in which there was an eruption.

33. Both sometimes excite terror, when they first manifest themselves, especially in cities; and are even thus, in my opinion, propagated by mental emotions. Such dangerous terror should be lessened.

34. Experience has proved that both require external heat and stimulation to the skin. In this practice, almost the whole profession seem to

be agreed. In regard to internal remedies, there is some difference of opinion in both diseases; although not so much as non-professional persons may suppose. Physicians may effect their main object by different medicines. They may resemble, in this one respect, mechanics, who use different tools to effect a common object. We in New London prefer the New England practice, because we think it adapted to our climate, and that it has been reasonably successful. There is some heterodoxy, however, among physicians, in both these complaints. This is not strange.

35. Cholera and spotted fever resemble each other in a physiological view of the cases. In both maladies there is probably a diminution and very unequal distribution of one of our fine vital elements—namely, caloric. And probably our other vital elements and nimble organization suffer *in a great degree*; or at first become torpid and then collapsed, as a consequence of the first wrong action of caloric.

The disease, or wrong action, of our nimble organization, including thin vital elements, may exist in a somewhat greater degree in the lower part of our ganglionic viscera—by which is meant those organs and parts below the diaphragm—in cholera, than in other forms of the pestilence. In many forms of the malady, however, there is a dreadful sinking of the sanguiferous circulation. The danger may be greater when the organic life is more affected, than when the animal or mental apparatus only is disordered. My own views are somewhat in accordance with those of Drs. Russell and Barry. (See their Russian Report to the British Government.) Somewhat correct sentiments, by the way, although they may be what is called theory, in physic, are better than wrong ones, although neither may be demonstration.

The easiest way to show the untenableness of the opinion, that malignant cholera is common cholera morbus become epidemic, is to exhibit the difference between these two maladies.

1. Common cholera morbus, in cold climates, seldom occasions death. Unless it may be endemic in a location, it seldom occurs except in August, or in very warm weather.

2. Post-mortem examinations show a great accumulation of bile as its cause.

3. Typhoid or consecutive fever is not a sequel to it, in adults.

4. Vomiting and purging is a salutary effort of nature to remove bile, and not a morbid action. It may, however, go so far as to kill a patient, at least in warm climates.

5. Malignant cholera differs widely, *in all these essential respects*, from common cholera morbus. The vomiting and purging, in the former complaint, when they do occur, are symptoms indicative of a far more destructive cause than too much bile. There is a morbid sinking of the whole sanguiferous circulation in the former case, and not in the latter, aside from vomiting and purging.

6. The general appearance of the patients is entirely different.

7. They are those who have not witnessed both, or those who do not make nice discriminations, who mistake one disease for the other.

October 1, 1832.

[To be concluded next week.]

ASTRINGENTS IN CHOLERA.

Successful Use of Astringents in the Treatment of Malignant Cholera.
By DANIEL EASTMAN, M.D.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I send you some remarks of mine on Spasmodic Cholera. They were drawn up during a great hurry of business, and consequently I could give but a brief sketch of the subject, either as respects the symptoms of the disease or its treatment.

Since making the above-mentioned communication, I have treated about twenty cases; and as the disease was on the decline, have had a better opportunity of observing the effects of the remedies which I administered—the consequence of which has been, that my confidence in the utility of the mode of treatment which I pursue has been very much increased. I have treated and cured many cases (and lost some of course), after the spasms had been severe in all the extremities; when the countenance had become much sunken, with large livid or brownish areolæ round the eyes, blueness commencing on the chin, the extremities in a profuse cold perspiration, integuments of the hands corrugated, and the voice changed, first to a ‘wailing tone,’ becoming gradually more hoarse and squeaking, till the articulation became so difficult and indistinct as to be nearly unintelligible. Cases, however, that have progressed to this degree, especially before the patient has had the benefit of remedies, which must frequently happen in country places, may be considered very dangerous and of doubtful issue; for there is a certain point to which evacuations may be borne, and beyond which, although the evacuations be checked, all attempts to cure by the internal or external use of remedies must prove abortive. In such cases, injection into the veins, notwithstanding its frequent failure, I do think might become generally successful by attending to the suggestion in my communication on that subject; for, from the opportunity which I have had of observing the disease, I am of opinion that death is caused, not by the operation of any deleterious agent on the system, but directly from an excessive and sudden drain from the circulating fluids. The cause, whatever it may be, is not in itself dangerous, independent of evacuations. I am of opinion that, generally, death ensues from inanition, and on this ground I found my confidence in the utility of direct repletion by injection into the circulating system.

I cannot enter my protest too strongly against considering spasmodic cholera a congestive disease, all post-mortem appearances to the contrary notwithstanding. It requires no extraordinary skill in reasoning to account for the post-mortem appearances on other and more satisfactory grounds; but facts in practice are better and more satisfactory, especially to our patients. The doctrine of congestion, unconnected with practice, might well enough be left to sink of itself into oblivion; but wherever the disease has appeared, it has led to the practice of venesection, which, in despite of the eminence of its advocates, and the plausibility of their arguments in its favor, is productive of the most disastrous consequences. It matters not that some patients have been bled and have recovered. This proves barely that the patient was able to withstand both the disease and the bleeding. No course of practice can be relied on until many

fair trials have been made with pretty uniform success. The practice of administering diuretics on account of the suppression of the action of the kidneys, is, for obvious reasons, equally preposterous, but by no means so dangerous. When the evacuations from the bowels are arrested, in the majority of cases, the kidneys resume (gradually) their proper functions. I have only had two cases in which diuretics were necessary.

I submit the above, together with the communication, for your consideration. If you think they may be of any use, you may insert them in your Journal in such form as may be most convenient for yourself. As the symptoms of the disease are well enough known to practitioners, they may perhaps with propriety be omitted.

Yours, respectfully,
DANIEL EASTMAN.

Napierville (Canada), Oct. 20, 1832.

[As suggested by Dr. E. we omit his account of the symptoms of this disease, already too familiar to every medical man, and offer below his remarks on the *treatment*, which appear to us judicious and philosophical. Could not the fluid used in cases of venous injections be made to assist the action of the astringents given by the mouth ?]

Such, Sir, is the disease that has lately committed the most appalling devastation in this parish (St. Cyprian); and, formidable as it may appear to be, I have good reason at present to consider it, in nearly every instance, a disease completely under the control of medicine, if administered soon after the accession of severe purging; and that those who read this may be enabled to judge of the propriety of this apparently bold assertion, I give my views of the disease, my practice, in connection with my reasons for the same, and the results.

Having been led to consider the disease as highly congestive, by our trans-atlantic brethren, or rather fathers, as well as by practitioners in our own country, I commenced, as by them recommended, by bleeding my patients, as affording the most obvious means of relief, when I could do it at the onset of the disease; but was soon constrained to abandon the practice. I gave opium both in small and large doses, combined with calomel and antimonials, as recommended by Dr. Good, camphor, ammonia, stimulating and volatile potions, the essential oils, applied heat in various ways, with rubefacients to the stomach and abdomen, directed friction with various hot substances, &c. &c.; but had the painful mortification of being obliged to relinquish all confidence in the entire routine of treatment that I had adopted, finding that only a very few cases of the disease terminated favorably, and that the recoveries appeared to be rather the result of accident than of good practice.

Finding myself in this dilemma, and my patients in a still worse one, I applied myself to the study of the facts that presented themselves in the disease, rather than the invention of new prescriptions, which would only be to grope my way in the dark; and came to the conclusion, that the disease is one of debility in proportion to the quantity of fluid evacuated, and the capability of the patient to bear the loss, which is that of the circulating fluids of the system poured out from the open mouths of the minute vessels into the alimentary canal: that although colic is fre-

quently present, the peristaltic motion of the bowels is not increased from any other cause than distension, in the same manner as it would be from enemata of warm water, and that the obstinacy of the subsequent symptoms bore an exact proportion to the loss sustained by the system generally. Hence the inutility, and even injurious effects, of bleeding. Large doses of opium, or of any of its preparations, are also objectionable, because they produce a stupifying effect, nausea, and debility, all which should be most sedulously avoided, and because there is no useful purpose to be answered by their administration. Moderate doses produce a gently exhilarating effect, and suffice to subdue the colic when present. Alcoholic and volatile stimulants are too pungent for the stomach, already too irritable, are transitory in their effects, and exhaust rather than augment the vital energies. If given at all, they should be in very small doses, rather as cordials and auxiliaries than as principals, but in most cases they had better be entirely excluded; at any rate, they may be safely neglected. Antimonials are injurious, because they produce nausea and irritate the bowels. Camphor in small doses might not be objectionable, but I have done very well without it. Ammonia and the volatile oils, in large doses, are liable to the same objections as other stimulants, and I prefer to occupy the stomach with other remedies better adapted to the cure of the disease, and avoid embarrassing this organ with a variety of remedies, lest it reject the whole. The application of heat is in my opinion objectionable, excepting where the surface is cooler than natural, which is generally the case with regard to the limbs, but the body is seldom below the natural temperature at the commencement of the disease; heat about the body, and a heavy weight of bedclothes, oppress and exhaust the patient. Friction in the most of cases is nearly a useless operation, as the fatigue and agitation of the patient which it causes, both in body and mind, counterbalance all the good effects that may be expected to result from it. To relieve the spasms, firm extension by grasping the heel, and pressing the palm of the hand against the toes and the foot, with pressure, by firmly grasping around the bellies of the contracted muscles, afford much more effectual relief than friction. Friction, with a view to produce perspiration, is unnecessary; for, in a severe case, before the effusion into the bowels is checked, I doubt whether a warm healthy perspiration can be procured. In a mild case, there is but little trouble in effecting a cure without it. In all cases, I prefer a dry warm skin during the continuance of the evacuations. In not a single instance have I known a perspiration to relieve the symptoms; in every case it was the result, not the cause of the cure.

I come now to the particulars of my own practice. My first dose is a grain of opium, generally in fine powder, in combinations with twenty grains of calomel and a teaspoonful of ground ginger, mixed with a little sugar and water. The opium in this moderate quantity is an agreeable stimulant, somewhat permanent in its effects, allays irritability, an invariable concomitant on severe evacuations, soothes the uneasy sensations, raises the sinking spirits of the patient, and relieves the colic when present. If this last symptom continue, I repeat the opium in minute doses, generally in the form of paregoric, until the pain abates. I give the calomel because there is an entire absence of bile in the ejected

fluids, the remedy being generally useful in emulging the biliary cavities, and is most decisively beneficial in common diarrhœa in substituting healthy for diseased action. The ginger is a warming aromatic, is permanent in its effects, sustains the action of the heart and arteries, and produces a dry warm surface. The administration of this dose is generally attended with complete relief within fifteen minutes of the sensation of 'floating,' excepting in the bowels, which are also partially relieved. The feeling of sinking and prostration materially abates, warmth is communicated to the stomach, and the pulse and temperature of the extremities are elevated. In many instances the patient says that he feels as if a current of hot water was passing from his heart throughout the whole system, to the ends of his fingers and toes, accompanied with pricking in the skin and flesh. Unless complete relief be given by this dose in a few minutes, which, indeed, seldom happens, I give thirty, frequently forty grains of the extract of catechu in fine powder, and continue rapidly to repeat the remedy, in frequency and quantity, as the urgency of the symptoms may require, till the evacuations wholly cease. Catechu is a very powerful astringent, of uniform strength, and on astringents I place my main reliance. The effusion from the open mouths of the minute vessels into the bowels must be absolutely restrained, or the patient will absolutely die; and I know of no more likely means of effecting this, than to apply a corrugating substance directly to the relaxed surface. It appears to act also by sympathy, both in the bowels and skin; for before the remedy has apparently passed from the stomach, the bowels are perceptibly relieved, and the skin becomes dryer and warmer. The first dose (calomel, &c.), with eighty grains of catechu, divided into two or more portions, will in most instances arrest the disease. When it does not, I give a teaspoonful of the decoction of Oak or Hemlock Bark, evaporated to the consistence of syrup, every five, ten, or fifteen minutes, as the case may require, until it arrests the purging. I have known a tablespoonful of this decoction, with a teaspoonful of paregoric, given at a single dose immediately after the calomel, to arrest the disease, although the spasms were severe both in the upper and lower extremities. When the stomach is very irritable, the astringent had better be given in the form of pills, being more easily taken, and consequently less liable to be rejected. In some instances, I have known a distressing nausea to be followed by the rejection from the stomach of an intensely acid fluid; in such cases, a few doses of the prepared chalk will afford very signal relief. The patient will derive some advantage, also, from the application of a large blistering plaster, sprinkled thickly with pulverized capsicum, over the seat of the most pain, whether it be in the stomach or bowels—the surface where it is applied being previously wet with warm water. When there is much restlessness, the compound assafoetida pill, or clear assafoetida in the form of a pill, is a useful remedy.

After the action of the bowels has been kept in check six or seven hours, it generally commences again, sometimes with no ordinary degree of violence. If the dejections be black or bilious, an occasional motion is admissible; if watery, they must be immediately checked, and the decoction of Oak or Hemlock Bark four parts, combined with paregoric one part, in moderate doses occasionally, is generally all that will be

necessary. When the bowels do not act spontaneously, which, indeed, rarely happens, a laxative of the mildest kind should be given in divided doses, in order to solicit a motion in the most gradual manner; as a quick motion, although not copious, produces a distressing faintness, somewhat difficult to remove and unpleasant to endure.

I subject my patients to rigid discipline from the commencement, enjoin a recumbent posture, prohibit motion even of the limbs, direct the covering to be only sufficient to make the patient comfortable, and, as the extremities are usually cool, additional covering and warm flannel may be applied to them. Heat applied to the trunk, as I have already stated, is injurious unless the surface of the body be cool. Motion increases the nausea and agitation of the bowels. As the vomiting and consequently the thirst is generally proportioned to the quantity of fluids taken into the stomach, I allow no other drink than a spoonful of broth once in half an hour, till the remedies have arrested the disease, when, of course, a gradual increase of nourishment is admissible and necessary.

Since I commenced the mode of treatment herein described, I have not yet lost a patient that made immediate application for assistance, on the accession of severe purging. Out of more than seventy patients, I have lost but ten (two of which were under two years of age), all of whom neglected to apply for remedies till they were nearly in a dying state, or were stubbornly mismanaged by the attendants. Previously I had had ten cases, five of which gave me a fair opportunity of testing the efficacy of the remedies which I made use of, and but *one* recovered. My patients have been at all distances within eight miles, and therefore could not procure assistance in many instances before the spasms had commenced in the toes, and in several cases severe spasms in all the limbs had existed some time previous to the reception of medicines.

With regard to the treatment of the premonitory symptoms, very little need be said, as there is not much necessary to be done. Fifteen or twenty grains of the blue pill, or the same quantity of calomel, followed with ten grains of the pulvis opiatu combined with an aromatic, and an astringent if necessary, will generally suffice. If, however, the bowels are frequently pouring off a watery fluid, the treatment should be reversed; and as a sudden check should be put to the discharges, the first remedy should be in the liquid form. For this purpose, three drachms of paregoric, combined with twenty grains of catechu, or its equivalent of some other astringent, answers very well. This treatment will seldom fail of success.

Relative to the supervention of febrile symptoms, on the cessation of the evacuation, I can say nothing from experience, not having known of any occurrence of the kind during the prevalence of the disease in this place.

As it frequently happens that medical assistance is not sought till all prospect of the utility of the internal use of remedies is at an end, injection into the veins, as a dernier resort, may prove serviceable, and is well worthy of a faithful trial. In resorting to this operation, I would suggest the propriety of giving astringents internally, in order that the fluid injected, in going the round of circulation, may not be poured into the bowels and thereby render its effects perfectly nugatory.

Respecting the pathology of cholera, the above remarks are sufficient to illustrate the principles on which I found my practice, and therefore all that need be offered.

Being strongly impressed with the urgent necessity of a general radical change in the treatment of Asiatic Cholera, of which the public at large must also be fully convinced by the awful mortality of the present summer, I am induced to contribute the above (necessarily imperfect, from the short portion of time that my professional duties would allow me to devote to it) to that most desirable purpose, that the disease may not ever remain equally a scourge to humanity and a reproach to the science of medicine.

September 22, 1832.

SINGULAR CASE OF LACERATED WOUND.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—The following case is of so singular a nature that it is communicated with the belief that its publication may be useful.

Mr. J., about twelve weeks since, while standing near the end of the arbor of a heavy grindstone revolving rapidly by water power, had his clothes caught by it and twisted up like a thread upon the spindle. This twisting commenced near the genital organs, and immediately involved them in the operation, in such manner as to remove every portion of integument and cellular membrane from the penis and upon the pubis, in a circular line from one external ring to the other. Every particle of the scrotum was torn away, leaving the cremaster muscles and tunicæ vaginales completely naked. The right spermatic cord was affected with involuntary twitchings; but the left appeared considerably elongated, and to have sustained considerable injury. Both cords were entirely detached from all connections up to the external rings from which they hung, and a better display of the parts, or cleaner dissection, could not have been made by the most expert anatomist. The sensibility of the denuded parts was most intolerable; the gentlest touch produced exquisite suffering. The circumference of the injury was well defined, resembling more an incised than lacerated wound; it was regular in its outline, extending from two inches above the penis to the perineum, and in depth to the external fascia. A penknife with three blades, which went into the operation, was bent into a circle and the blades broken, showing the great power which well nigh spun his thread of existence to an end. Had not the machine been soon stopped, the penis and both testicles must inevitably have been torn away; as it was, it was a frightful injury, and in its nature, perhaps, without a parallel.

In this state of things the medical gentlemen of the vicinity were immediately assembled, and from the singularity of the case some embarrassment was experienced in deciding upon the best course to adopt. It was, however, decided that as the left spermatic cord had sustained severe injury, and as its loss would not necessarily cause emasculation, it should be removed. In this trying situation the fortitude of the patient did not forsake him; he entreated that this measure should be adopted, if his safety in any way depended upon it. The operation was easily performed by holding the cord firmly between the thumb and finger and di-

viding it with a bistoury, and tying a single artery which bled very freely. Upon relaxing the pressure, the spermatic vessels were felt to recede through the fingers; and, as a precautionary measure, a ligature was loosely applied to the remnant of cord to prevent its recession into the abdomen, which however did not take place. The wound was then dressed by wrapping the parts in the lightest linen wrung from a liniment composed of equal parts of lime water and olive oil. This dressing was found exceedingly useful in protecting the denuded surface from irritation, without evaporating. The penis and remaining testicle were suspended in bandages passing over the legs.

Nothing could exceed the sensibility of this wound. The slightest motion, or touch, or drop of urine, would excite intolerable suffering. The treatment was completed by observing the strictest antiphlogistic rules. The cure went on well enough, but was a serious business for the patient. The moment he went to sleep, he was troubled with erection, which caused excruciating pain. This was not all; an induration of the inferior surface of the penis added chordee to this symptom, and these continued for more than two months. Doubtless this erection was a desirable circumstance for obvious reasons; still it was most tormenting, causing bleedings and short and disturbed sleep.

Although the progress of the cure was slow, yet it was wonderful to witness the resources and operations of nature. The testicle, which swung from the external ring, united to the surface of the wound in the perineum; the cavity of this wound was filled by granulations, and covered in part by the contraction of the skin from its edges, and partly skin newly organized, as was the penis (but without prepuce) and anterior surface of the testicle. The testicle is well provided for, being buried and protected in the perineum; the integument now covering the penis is loose and ample, which is to be attributed to the erections, for two months such a source of torment.

Mr. J. is a young man in robust health, and submitted with great resolution to all the painful emergencies in which this unfortunate accident placed him; and I have no doubt but he will ultimately be restored to his full procreative powers. This case, too, gives a useful lesson upon the restorative powers of nature; and it appears to me that we do not place reliance enough upon this wonderful provision, and that we too often lay down science to take up the knife.

JAMES DEANE, M.D.

Greenfield, Mass. November 1, 1832.

PROTRACTED LOSS OF VOICE WITHOUT ORGANIC DERANGEMENT.

BY E. G. DAVIS, M.D. BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

R. W., æt. 7, was seized on Sunday, the 23d of September, with febrile symptoms, which the next day induced the parents to apply for medical advice. When seen on the 24th, was found to have scarlatina, with the eruption well developed. She was bled to 3 iv. with the effect of producing faintness. Other remedies were also employed, with apparently good effect; and nothing remarkable presented itself the next day. On the morning of the 26th, being hastily called, I found the eruption less marked, the tonsils enlarged, and some important changes in the state of the nervous system. She had slept none during the night. She

lay with her eyes half open and staring. The face became alternately pale and flushed in the course of a few moments. She screamed at intervals very violently, with agitation of the whole body. She gave no answer when questioned, but understood and obeyed what was told her. During the day she became more calm, and occasionally spoke, but was evidently delirious.

The 27th, was found to have had another restless night; lay with eyes nearly closed; conjunctivæ slightly injected; uttered a long, low, monotonous whine; still made no answer to questions. In this state she remained through the day, except that the restlessness diminished, and that she had paroxysms of violent crying, more like that of irritated feeling than as if from pain.

28th. Had had similar paroxysms during night; lay with eyes open, noticing nothing; when addressed, gave little sign of understanding what was said to her; exhibited some irregular contraction of pupils; answered no questions, but occasionally uttered one or two words. During the day the calm became more perfect, resembling tranquil sleep, from which she was not easily roused.

29th. Found with eyes closed, face still; not regarding questions; making slight effort to open eyes and to protrude tongue when directed. During the day the symptoms did not materially change.

30th. When seen, lay much as at last visit, and could not be induced to open eyes or protrude tongue; cried almost incessantly during morning visit; in the course of the day became tranquil and drowsy.

October 1. Found as before; cried without intermission during visit, with eyes shut and mouth nearly closed. Toward evening, after a cathartic, diarrhœa with involuntary discharges; attention could not be aroused; mouth firmly closed, making it difficult to introduce a spoon. The diarrhœa was controlled without difficulty.

2d. The night had been more quiet. The eyes were partly open, and she seemed to observe an object placed before them. Gave no evidence of hearing when spoken to. The bowels had not moved spontaneously for five days.

3d. Does not notice objects; voice quite gone; hearing very doubtful; cried much at intervals through the day.

From this till the 8th she remained entirely speechless, without even uttering an articulate sound. During this time she continued improving, her pulse became of natural frequency, and she acquired in some degree her appetite. On the 8th, she was able to speak a few words in a whisper. She had at this time almost the aspect of an idiot, laughing and crying alternately, making various grimaces, and staring at objects with eyes fixed, and pupils dilated. On the 13th she could speak a few words aloud, and pronounce about half the letters of the alphabet. Those she was unable to utter, were c and s, g, j, l, m, n, p, q, t, w, y, z. The greatest difficulty was evidently with those sounds in pronouncing which, the tongue is brought against the roof of the mouth, so as to impede the passage of the air, as in s and z.

15th. She had somewhat improved. She was, however, unable to pronounce z or s; f or v; g or j; w or y. The p and t could scarce be enunciated, while the b and d were pronounced with the greatest facility. The l, m, n, required some effort, particularly the first. The difficulty in most was a want of control over the muscles; though in some, as the two first mentioned, there was not sufficient force to propel the air through the mouth.

In the course of the next few days, her vocal powers improved rapidly, and on the 17th she was able to repeat all the letters with great difficulty. For some time after this, circumstances prevented my giving strict attention to her case. The muscular strength improved very slowly, and it was not till more than three weeks from the date just mentioned that she was able to sustain a standing position.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, NOVEMBER 7, 1832.

TREATMENT OF CHOLERA.

It is often said, in favor of stimulants in the treatment of the cholera, that whatever may have been the diversity and contrariety of opinion among the faculty respecting other classes of remedies, all are agreed in recommending those of this class. Now to us this appears but faint praise, when we regard the appalling fatality of the disease in every quarter of the globe it has visited ; and like the same kind of recommendation in some other cases, it appears to us to condemn the remedy, rather than confirm it. We have a signal example of the same kind of reasoning, in the instance of the croup. All agreed that bleeding, and purging, and vomiting, and calomel, must first be resorted to ; and if no relief was obtained, why bleed again, and purge again, and vomit again, and give more calomel. Some proposed one specific, and others pretended to find a cure in another ; but they would none of them stand the test of another's experience ; and physicians were compelled to come back to the old routine as the only scientific or safe mode of managing the disease. This course was pursued for a long series of years ; it was taught in the schools, and retaught over and over ; it was that course on which the profession were agreed, whatever might be the single opinion of this man or of that. The only misfortune was, that most of the patients would die ; and on the long catalogue of the diseases of childhood, there was not one so surely or speedily fatal as croup,—none that carried with its very name so deep a dread to mothers, or a more hopeless feeling to the physician. At length it occurred to an English surgeon, that the almost unparalleled uniformity in the treatment and the termination of the disease, indicated some fundamental error in the former, and in the pathology on which it was founded. He adopted a different pathology, pursued an opposite course of treatment, and found the disease yielded to it, as by magic. Subsequent experience in Europe and America, has given the same happy result ; and we now look upon the croup as one of the least alarming and the least fatal of the maladies with which we have to contend.*

We would reason in the same way on the great subject before us. It matters not how generally stimulants or any other class of remedies may have been given ; so long as the disease heeds them not, the treatment and the pathology are yet to be found out. Nothing has yet been tried that apparently comes so near to the right course, as the saline injection ; and we hope the faculty will abate nothing of their ardor in pursuing,

* See this Journal Vol. III. pp. 25, 145 ; Vol. IV. pp. 243, 244.

modifying, and varying this treatment, until it shall be made to accomplish all it is capable of effecting. Together with this, we would call the attention of the reader more particularly to the paper of Dr. Eastman, which we publish to-day. The use of astringents, in the manner indicated in this paper, appears to us sufficiently promising to demand an immediate and extensive trial, the result of which we shall be most happy to record. The good effects of common salt in this disease are probably owing to its astringent action on the minute extremities of the vessels terminating in the primæ viæ, more than on its chemical action on the blood. The causes, too, have generally been aided by relaxing circumstances. The disease has spread with the South East wind in Europe; and among the inhabitants of Russia, it was doubtless promoted by the relaxing atmosphere of their stove-heated houses. We might cover pages with facts that encourage the hope that some good may result from the proposition before us, but prefer leaving it for the present to the test of experiment.

Contagion of Cholera.—It will be recollected that the greater number of the physicians of Paris subscribed, all of a sudden, to the doctrine of the non-contagion of cholera. M. Velpeau was one of those who set their names to the celebrated declaration published immediately on the outbreak of the epidemic in the French capital. This gentleman now candidly confesses the over-hastiness of that proceeding, and has published, in the *Archives de Médecine*, a paper containing a narrative of facts, and the results of above eighty cases closely examined, which supply a chain of evidence, of the most conclusive nature, as to the positive existence of contagion.—*London Medical Gazette.*

Dr. Samuel B. Woodward, of Wethersfield, Conn. has been appointed Superintendent of the State Lunatic Hospital, in Worcester, and has accepted the appointment.

The concluding part of Dr. Allen's Communication will be given next week.

Whole number of deaths in Boston for the week ending Nov. 3, 40. Males, 19—Females, 21.
Of consumption, 5—convulsions, 2—cholera malignant, 5—infantile, 4—hooping cough, 2—teething, 3—lung fever, 2—canker in the bowels, 1—inflammation in the bowels, 1—paralysis, 1—uterine hemorrhage, 1—scrofula, 1—spasms, 2—old age, 2—delirium tremens, 1—typhous fever, 2—worms, 2—cholera infantum, 1—disease of the heart, 1—mortification, 1.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VII.] WEDNESDAY, NOVEMBER 14, 1832. [NO. 14.

THE SPASMODIC CHOLERA.

Remarks on the Pathological Character of the prevailing Spasmodic Cholera, and on the Therapeutic Application to it of Remedial Agents. By J. A. ALLEN, M. D. Middlebury, Vt.

[Concluded from page 169.]

THE deranged functions enumerated, occurring either in close succession or at the same time, constitute cholera *spasmodica*. This disorder, happening sporadically or epidemically, appears to be resolved by its own nature into three distinct stages or varieties. These stages, it would seem, in all countries, climates and places, have pretty uniformly been found to succeed each other in a uniform and regular mode of morbid association. The cholera *diarrhœa* has been found to precede the paroxysm of asphyxia, and the asphyxia the typhoid stage, in all uninterrupted and fully developed cases. These stages seem to bear as intimate a relation to each other in the train of causation, as the *cold*, *hot*, and *sweating* stages of any of the species of Anetus do to each other. Mere morbid concatenations are probably more readily dis severed by the natural sanative powers of the system, or by well adapted medication in season, than the diseased actions in Anetus are. The natural stages of cholera *spasmodica* may be designated thus—

1. C. S. *Mitis*.
2. C. S. *Asphyxia*.
3. C. S. *Typhoides*.

1. *Mild Spasmodic Cholera*, Cholera *diarrhœa*, *Choleroïd*, or *Cholérine*. The characteristic symptom of this modification of the cholera has been represented somewhat different in different places, and at different times. It is usually preceded by a white slimy coat on the tongue, and some abnormal action of the chylopoietic viscera; sinking sensation in the epigastrium, followed by watery dejections, commonly copious and serous; spasmodic actions of the muscular system various, and also the action of the vascular. I have found the pulse in some cases at one hundred and fifty beats in a minute, and in some other cases reduced to fifty; and my friend R. Gowdey, M. D. has found the pulse at forty, and very weak and tremulous. These extremes of augmented irritability and torpidity, denoting atony in opposite states of excitement, however paradoxical it may seem, have unquestionably originated from

the same epidemic cause. The same fact in relation to cholera *diarrhæa* and cholera *asphyxia* is equally certain. The development of the latter disease epidemically has probably occurred in no place unaccompanied by the former. At New York, it was the opinion of Dr. Francis, some time since, that as many as seventy thousand persons had been thus affected. Dr. L. C. Beck, in his late report to Gov. Troup, states that in every place where he had traced the progress of the complaint, stomach and bowel diseases were very common. In India, the same facts were observed. At Paris, a majority of the inhabitants, we have been informed, had suffered from this modification of the epidemic influence before May last. Authenticated records rarely afford an instance of cholera *asphyxia* unpreceded by some abnormal action of the stomach and bowels. From these facts the conclusion appears irresistible that the cholérine arises from the same epidemic meteoration that the cholera *asphyxia* does ; and, therefore, *does in reality constitute a part of the same disease*. During the prevalence of the cholera at Orenburg, Dr. Onufriev observes, ‘there was scarcely an inhabitant who had not symptoms of indigestion. One complained of oppression in the breast ; another of pain in the head ; some of nausea, diarrhœa, and the like. To me it appears that the cause of these symptoms was a general invasion of the systems of the inhabitants by cholera, which was, however, prevented from developing in its perfect form, by regular manner of living and other similar measures.’ In this country, it seems the invasion in many places has been nearly as universal ; and thousands have escaped the stage of asphyxia by regular manner of living, and mild medication at the onset of the incipient diarrhœa. Others, unconscious of their danger, have neglected this modification of the cholera till the sinking stage occurred, and a premature death closed the scene. To correct this error and remove this danger, are the important objects of the present essay. Had the public been apprised that the cholérine was the commencement of the cholera, it is presumed thousands of valuable lives would have already been preserved. How often in the present epidemic has a slight *liquid* diarrhœa been neglected, and terminated in collapse and death ? Had an eminent writer in a late number of this Journal been practically acquainted with the present epidemic, he would have found, it is presumed, a greater resemblance between cholera *spasmodica* and typhus *syncopalis* than he has assumed. Dr. Miner might have remarked, in relation to the range of the severity of the former, as Dr. Darwin did in respect to that of cynanche *maligna*, ‘that it exists from a flea-bite to the plague.’ The cholera, if the preceding views be tenable, exists from a slight affection of the stomach to asphyxia, which when intense is nearly moribund.

2. Cholera *asphyxia*. Had not custom sanctioned the use of the term asphyxia, the word *acrotisma* might have been preferred ; because this denotes a defect of pulse merely, whereas asphyxia has long been used to denote apparent death, an entire suspension not of the pulse only, but of sensation and voluntary action also ; and in cholera *asphyxia*, seeing, hearing and volition are not much impaired—the pulselessness being in fact the essential distinctive characteristic, with the exception perhaps of the inordinate thirst, between a severe case of cholérine and cholera *asphyxia*.

3. Cholera *typhoides*. If the patient survive the paroxysm of subsidentia, the complaint assumes the character of *Enecia Typhus*, or approximates it. Consequently the same remediate course is demanded that is required for typhous fever.

Medication. It is obvious at sight that the therapeutic adaptation of remediate measures to the constantly varying pathological phenomena, must be highly important and in some cases extremely difficult. Guided in this, as in all other complaints, by the morbid phenomena developed at the time, it is believed the indications of cure are all referable to four principal objects.

1. *To change the morbid or suspended action of the secernents and exhalants.*

Emetics, especially those of an alterative, acrid, or deobstruent kind, have been advantageously used in all stages of the complaint. From the sudden impression which they make, and also from their antispasmodic power, they may prove remediate. Ipecacuan. and tartarized antimony have been found beneficial at the onset of cholera *diarrhæa*. Sulphate of zinc, mustard, and common salt, have each been extolled, and are probably less objectionable than tartar emetic, because less likely to produce exhaustion and to increase the alvine discharges. Mercury, however, from its powerful alterative and deobstruent properties, is the most important agent to fulfil the above indications. Calomel, combined with opium in different proportions, has been found to restore healthy secretions, especially in the choleroïd. Some have preferred large doses of calomel and opium; others small and repeated doses of each. Either will accomplish the object. I prefer *slow purging with calomel and opium*, because if these be administered in sufficient quantity to allay all inordinate discharges and spasms twelve or fourteen hours, and then the calomel be suffered or excited to produce a cathartic operation, sufficient alteration will have been produced on the secernents, and the patient will be speedily well, if the disease has not passed the first stage. Difficulty is sometimes experienced on account of the medicine being immediately rejected from the stomach by puking. In such cases, much advantage is gained by giving the medicine instantly after a paroxysm of puking, and allowing little or nothing to be taken into the stomach for some time after. By this process the stomach will be brought under the influence of the opiate in its quiescent state; before it has time to regain its sensorial power sufficient to reject the medicine, it will be under its calming effects. If the first attempt fail, by repetition the object will be accomplished. The practice of '*washing down the medicine*' with some stimulant liquid is worse than useless, because the liquid from its own distension of the stomach will cause itself, with the other contents of the stomach, to be rejected in cases of considerable increased irritability of that organ. To be effectual, the opium should be in a state of extreme division, either in powder or solution; and sulphuric ether may often be combined with it. Occasionally, the cholera *diarrhæa* has become protracted. In such cases, in this part of the country at least, tonics, in combination with narcotics and acrid stimulants, have been found useful. Cinchona, galangal, cascarilla, &c. either in an aqueous infusion or tincture, or opium, quinine and capsicum, have all been used. In many mild

choleric cases, the simple eccoprotic effect of rhubarb, charcoal, or calcined magnesia, separately or mixed, has been sufficient to remove the disease.

2. *To restore the normal functions of the nervous system.*

The subsidence or unequal distribution of the neuralgic power is probably best removed by the use of acrid excitants, such as ammonia, capsicum, mustard, cantharides, volatile oils, friction and caloric, employed as the nature and circumstances of the case appear to require.

To affect the system of ganglia, counter-irritation may be made in the course of the spine, as practised by M. Petit at the *Hotel Dieu de Paris*, who places over the spine a strip of flannel wet with a liniment composed of eight parts of spirits of turpentine and one part of aqua ammonia, and passes slowly over it a hot flat-iron. Speedy vesication is produced, the heat returns to the skin, the cramps and vomitings abate, the circulation is re-established, and the patient feels relieved. Steam evolved from heated bricks, and placed around the patient in the bed, may be made to accomplish the same object.

3. *To allay the spasmodic action of the muscular system.*

To accomplish this object, opium given in large doses at regular intervals is probably more to be relied on than any other article. Dr. Sydenham, in the epidemic cholera of 1667, gave twenty-five drops of his laudanum, and repeated it in increased quantity every thirty minutes till the spasms yielded. He then continued the medicine in diminished doses, and at longer intervals, till the recovery was complete. The effect produced, and not the quantity given, is the object of principal moment in violent morbid actions of the muscular system. In cholera cases, however, more caution is necessary, lest the sedative action of the medicine be so great as to augment the natural torpidity of the disease, and by that means induce congestion, inaction and death.

4. *To relieve the subsidence of the vascular system, and restore action in the capillaries.*

Venesection may prove remediate in the incipient stage or in an atonic state of the system by its diminishing vascular action, and by its influence on the secernents, exhalants and nervous system; and also by its increasing the susceptibility to the action of remedial agents. In atonic states, and at the period of asphyxia, more especially those cases in which a great proportion of the serum of the blood has been removed, it can easily be imagined what would be the consequence of taking away the crassamentum also. Nor, indeed, can much more advantage be anticipated from the attempt to obviate the pathological state of the blood by the injection of saline solutions into the veins. If it were possible thus to restore the blood to its healthy state, it would no more cure than the removal of the water by tapping would, in a case of ascites, cure the dropsy. The same pathological state of the vessels that caused the change in the blood would still remain; consequently no more than evanescent results can be rationally expected from this measure.

Electricity and galvanism may be brought to act directly on the nervous system, through the medium of the vascular; but whether these agents are any preferable to other diffusible excitants, as volatile oils, ether, &c., has not, to my knowledge, been experimentally determined. Numerous stimulating lotions and liniments have been used, and when

aided by thorough friction and not counteracted by the admission of cool air or evaporation, are important. A liniment composed of mercurial ointment, camphor and capsicum, is the best which I have seen recommended, on account of its being highly stimulant and alterative.

The preceding imperfect outline will suffice. The pathological phenomena developed in each case, carefully observed, will afford the only correct data by which all remedial measures can rationally and successfully be governed. If I have suggested anything important, it will not be lost; the candid will improve the hint. If not, they will excuse the attempt; my design being to propose to, not to impose upon, their judgment. Hence, in the words of Horace I will close—

‘ Si quid novisti rectius istis,
Candidus imperti; si non his utere mecum.’

October 20, 1832.

PROGRESS OF THE CHOLERA IN ADDISON COUNTY, VT.

THIS County, situated on the eastern shore of Lake Champlain, contains about 25,000 inhabitants. A large proportion of them, between the last of July and the first of October, have experienced some modification of the cholera. Abnormal actions of the bowels, especially diarrhœa of copious white liquid discharges, have been very common, and attended often with spasms and moderate sinking. *Six well-marked cases only, in this time, have run into cholera asphyxia and terminated fatally.* It is evident that many others have escaped the fatal event by early use of remedies in the first stage.

J. A. A.

MALIGNANT ASTHENIA.

Remarks on Epidemical Malignant Asthenia. By ELISHA NORTH, M.D. of New London, Conn.

[Concluded from page 202.]

To show that cholera, like spotted fever, is very various in different places, I will state that I have had an interesting interview in New London, with Dr. De Kay of New York. This gentleman has witnessed the cholera in Constantinople, in Montreal, in Quebec, in Crosby Street Hospital, New York, and elsewhere. He says to me, *that the malady as seen by him is manifested in many forms.* He gave me the following short history. When he first saw this disease in Constantinople, or on board of a ship, he knew not what the complaint was. His first patient died with it. He had, then, however, a faint reminiscence that he had once read, in some book, an account of a similar malady, as regards treatment or the use of stimulants. When he arrived home, he ransacked his library and found the book which had occasioned those reminiscences. It was North's Treatise on Spotted Fever. This to me, as may well be supposed, was gratifying intelligence, and it ought not to displease others. I hold no public office; I therefore need not be watched—to use one of our good republican phrases—lest I might assume improper airs, or have too much temerity. A public writer, or a

physician, cannot expect to suit or convince every one, because our heads are organized differently ; and the fashion as respects style or composition is various.

2. Why should we import from Asia a very deceptive generic name, for a pestilence first known and first described in our own country ? The above remark has no reference to any book preceding that of Dr. Annesley in 1825. The name of cholera morbus had been applied, in my treatise on spotted fever, to *one bad form* of our malignant epidemic, more than twenty years ago ; although that form of the pestilence had not, so long ago, been made manifest so extensively and destructively as has since been the case. The same cholera form of the spotted fever has been noticed by other writers, since my book was published, previous to the present epidemic season. The generic name, then, was petechial or spotted fever, although it was a very deceptive one. But we had, at that time, no better. This name is, however, as good a one as that of cholera, if not better. The term petechial was once applied to many pestilential epidemics. (See Cullen's Nosology.)

3. Dr. James Annesley, in his publication, in London, in 1825, puts the subsequent question—Does the history of medical science furnish any account of the occurrence of an epidemic disease, like the one he is about to describe under the name of Indian Cholera, *in any other part of the globe* ? To this question the learned Doctor gives a negative answer. I have made use of my own words in stating the question. In the Bombay Report, according to Dr. Johnson, it is also concluded ' that the epidemic cholera differs from all other known epidemics, and may be said to stand alone.' It is now contended in this country, by a few persons, that a very similar epidemic disease, under a different name, viz. that of Spotted Fever, had occurred in the United States of America and in Canada ; and had been described by various authors, anterior to 1811, i. e. fourteen years previous to Dr. Annesley's publication. That learned author was probably unacquainted with American medical literature. Notwithstanding his ignorance of such literature, his opinions have unfortunately had, even in this country, too much influence for our public good. They have given rise, with other publications, to the highly terrifying and false sentiment, throughout this whole nation or continent, that we have Indian cholera—a dreadful disease—*sui generis*, among us. In my humble, and may be very selfish opinion, it is well for the cause of scientific truth that my life has been spared to set this matter right. Others have, however, helped, particularly Dr. Thomas Miner, in this same cause. This scientific fact, just had in review, shows one evil, which we experience from too much dependence on foreign physicians to teach us how to treat diseases of our own country, instead of learning the difficult art at the bedside of our patients. The scientific error which is now claimed to be rectified, principally by myself and Dr. Miner, could not have been corrected in Europe, for want of that minute and experimental knowledge in regard to spotted fever which we possess in this country. It is hoped that the English and French, from whom we receive so much valuable literature, will not receive this intelligence as *boasting* ; and that they may be willing to be benefited by it.

4. I cannot perceive that any evil can result to society from regarding

the Eastern and the Western epidemic as one pestilence, which has been made manifest somewhat simultaneously on two continents ; the opinion of Dr. Francis, and perhaps others in New York, and elsewhere, to the contrary notwithstanding. All cannot, as the Doctor must be aware, view things precisely alike, in consequence of their different cerebral organization. This must be my excuse to him.

Disapprobation, by many readers who have treated spotted fever, will no doubt be awarded to the Doctor for his powerless attempt to make the public believe that the treatment of spotted fever in New England and elsewhere has been '*unwarrantable*' and '*empirical*,' for twenty-six years past. Charity induces the belief that this attempt of the Doctor was made without due reflection.

September 19th. I have this day visited one patient, sick with our epidemic, in the colic form of spotted fever. This person had vomiting at the attack, as well as a periodical pain of the belly every few minutes, which would occasion him to draw his body forward as often as the pain came. I have little or no doubt he would have had rice-water evacuations, had the disease been allowed to unfold itself naturally. In the afternoon, I visited another patient with the same pestilence, at no great distance from the first, in consultation with Dr. Perkins. This patient had our pestilence in the cholera and collapsed form. He had flocculent, thin, aqueous, inodorous matter, not of a rice-co or exactly, forcibly discharged while I was present. He had hiccough, sunken eyes, and a bad pulse. I was told that he had been afflicted with vomiting and rice-water discharges, and spasms of the lower limbs ; that he had cholérine, while at work, for a fortnight previous. The former patient convalesced on the 5th, and the latter died the same day of his disease. Both had consecutive fever.

I have had the misfortune recently to lose a patient of my own, with well-marked symptoms of cholera. I have seen patients this very season die, or I staid by them until they were almost gone, with what was called spotted fever, and have their senses nearly to the last breath. Now shall I believe my own senses, supported by those of Dr. Perkins, or the assertions of the learned Dr. Francis, who has probably never seen the malady in all its diversified forms ? By way of illustration, Dr. F. is reminded that an individual sheep may be black, and another may be white ; yet mankind agree to call both by the common name of sheep.

5. My views have a tendency to allay the public panic, in regard to the hideous Asiatic cholera, as it has been called. If the New York Board of Health had taken such views, previous to their Memorial to Congress, on the subject of Asiatic cholera, we should have suffered much less from a pestilential panic than has been the case. The view upon which they acted was, that such a pestilence had never existed in this country ; and that it was, or might be, progressing towards us by contagion or infection. To this position, and to what follows, the Hon. Gentlemen will doubtless concede ; for useful truth should be the only object with us all. That Memorial, and the Congressional measures which resulted from it, helped powerfully to electrify this whole nation in regard to cholera. The evil of this panic has been almost as great, in one view of the case, as that of cholera. The value of life and comfort

is greatly lessened, if we must live in perpetual fear of death. The publication of every case of cholera, that can possibly be found, even in our very villages and in our somewhat unimportant cities, may keep up this excitement and terror forever, unless such excitement be lessened by habit. If cholera or spotted fever has hitherto occasionally occurred in our country, it may continue to do so ; and too much should not be published concerning it, having reference to the timidity and comfort of society. The promulgation of true science, however, should not be interfered with. I say *too much* publication, because the use of the public press in some measure may be needful to prevent oral misrepresentations and marvellousness. The last evils may not, however, be so extensive as *those which may be occasioned by an injudicious public press.*

6. New London, or the Board of Health for this city, have first set a most excellent example to almost the whole Christian world, in regard to cholera. I say *Christian* world, because, according to Dr. De Kay's account, the Turkish authorities have always been sensible that quarantine regulations, by exciting fear, were worse than useless. It has been the policy, in New London, to lessen pestilential and unhappy excitement as much as possible, in regard to cholera. We are gratified to learn that other places begin to follow our example. We, the citizens of New London, have derived much benefit from our management, in another point of view. The excitement in New York, last spring, was so great, that, in all probability, we should have been subjected to the great evils of quarantine regulations in that city, if that excitement had not been moderated by the name of spotted fever, which was then given to our pestilence by some of our influential citizens who were in New York at that time.

It may appear to some persons in New York that sinister motives have operated, in this business, in New London. They are assured that such was not the case. If we, in this small city, have done better in regard to pestilence than has been the case in larger places, it is because we have availed ourselves of highly important truth, in regard to spotted fever, which happened to be known by some of us. That the most judicious, in the great public, will *ultimately* give their verdict in our favor, there is little doubt.

We contend, that a sickly season, in a given country, operating as a cause, must have a somewhat common effect upon human vitality, as respects disease, as well as upon vegetation in an agricultural view of the case. Cholera and spotted fever cannot therefore be maladies opposed, in their general nature, to each other. A difference, in human organization, and in intervening causes, is what makes the difference between cholera and spotted fever ; and also any other diversified form of our malignant epidemic. A difference, however, in the constitution of our patients, may vary both the symptoms and the treatment which may be needed. That so highly complicated a machine as man, should be injured and made weaker, and even be made sick, by many combined hurtful causes, is not wonderful. That the feeble and also unacclimated, and those who may be too much crowded in cities, and elsewhere, should be the first to suffer from an unwholesome season and from an

injured vegetation, as the case may be, is equally natural. Such causes diminish the vigor of the human mind as well as the body in seasons of fearful pestilence, even among those in health. When the whole mechanism of human society goes wrong in pestilential times, minds and bodies being weakened, great mortality is not wonderful.

7. I have now shown the resemblance between the Eastern and the Western epidemic. The more difficult task of showing the difference, I leave for nosological writers. This literary labor has already been begun by Dr. Thomas Miner. To this learned gentleman must be conceded the credit of having first published the sentiment that cholera and typhus syncopalis or spotted fever were identical, or nearly so. At least, this concession must be made if it be true that he published that opinion so long ago as 1825.

Is not the question settled forever, by living witnesses and printed records, in favor of the somewhat general nature and domestic origin of our pestilence, and against its supposed importation from Asia or Europe? for the two questions are involved in each other. Has not society already acted too long upon the opinion that the cholera might have come from Asia? At any rate, has it not been shown that what has been called malignant cholera and spotted fever are more near, in alliance, than is the case with the latter and the typhoid pneumonia of this country? These two last forms of complaint have, hitherto, been regarded as nearly identical, by many of our physicians. In this view of the American pestilence, there should be three, instead of two species, besides varieties. I have seen all these three forms of disease in New London, this very season. I believe no person ever thought typhoid pneumonia came from Asia. Why not slander Asia for this calamity, as well as for cholera? This highly frightful sentiment, in regard to cholera or spotted fever, will long be remembered as one of the literary delusions perpetually springing into existence, in consequence of the imaginations of men, and in sequence of their known disposition to refer, for all their evils, to a source foreign from their dear selves. In consequence of the strength of this last disposition in non-professional readers, I shall publish this communication in a Medical Journal; for I choose for my jury medical men, and would have, if I could, those who have often witnessed both bad and common cases of spotted fever and cholera. Those persons, on the one hand, who read much on the cholera, and on the other hand those who read little on the spotted fever; and likewise such physicians as may not, yet, have had an opportunity to witness both maladies, if they must be regarded as such, are far from being impartial judges on the question under discussion. At my somewhat advanced period in life, I might not find motives to trouble the public with this essay, unless I believed that any given number of *such persons* as I have appealed to, would finally agree to the general correctness of my sentiments, and the public be thereby benefited. False sentiments, on many subjects, often become manifest. But with these I have, now, nothing to do, because they do not, in general, kill us.

8. That I am not contending with a man of straw, is thus proved, if proof can be needed. The special medical council of the Board of Health of the city of New York, have recently (September) solicited an answer

from Boards of Health in other cities to the subsequent questions—‘Was there any evidence that cholera was communicated from a foreign source? And have you any facts to prove cholera contagious?’ The idea of Indian or foreign cholera was doubtless in the minds of the Hon. Gentlemen, when these questions were put. There was no need of troubling others with such questions at all, if these individuals had been satisfied that cholera was of domestic origin; or that it might come into existence, in many different places, in some sickly seasons; and that, *then*, it might be *very rarely* propagated, *in those unwholesome places*, by sympathy, or mental emotions, or possibly otherwise. Such questions, in my opinion, cannot now need an answer, because they have been already sufficiently answered, if we have reference to either spotted fever or cholera.

I have information from my son, in a letter, dated September 29th, which satisfies me that they have had spotted fever, *including the cholera form*, in New Haven (Conn.), the summer past. This son has seen a considerable number of cases of spotted fever, in New London, and had it himself while here. He has since witnessed the same disease in New Haven. He saw more cholera cases, however, there, than here.

If the Hon. Board of Health of New York had sent their learned commission, Drs. De Kay and Rhinelander, to New London, last spring, as well as to Montreal last summer, they would then have had the power of comparison between the epidemics in the two places, by the testimony of eye witnesses of their own choice.

9. If my cause is made good, this communication should be extensively republished, from this Journal. I have myself, for a long time, regarded spotted fever and cholera as one complaint, *at least so far as the general conduct of the community is concerned*; and this opinion has already been given to the public. I have now assigned my reasons, without intentional arrogance, for such an opinion.

New London (Conn.), Oct. 10, 1832.

P. S. I have said nothing in regard to medicinal treatment, because I design to do this in a second edition of my work on spotted fever, if such an edition should be hereafter wanted. E. N.

SALINE INJECTION IN CHOLERA.

Case of Spasmodic Cholera in which the Saline Injection was employed three times in succession—Apparent Improvement—Subsequent Sinking, and Death. By E. G. DAVIS, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

ON Thursday, the 18th ult., at 4, P. M., Mrs. Hanaford, aged 45, living in a small room in the rear of Broad Street, at the foot of a flight of steps leading from Fort Hill, reported to be of temperate habits but to have drank more than usual for some days, was seized with vomiting and purging. She had been affected with diarrhœa the preceding day. I saw her at 8, P. M. She then had the characteristic symptoms of spasmodic cholera: evacuations of the usual peculiar substances from the

stomach and bowels ; cramps of great severity ; cold extremities, with some corrugation of fingers ; lips and areola round eyes livid ; pulse feeble, and soon after imperceptible. The burning at epigastrium, so often observed, was not present. External heat and internal stimuli were administered, without apparent advantage. The cutaneous surface was exceedingly sensitive to heat, as I have found it in similar cases. A sinapism applied to the abdomen caused great distress in a short time, and at her earnest request was removed. The burning produced by it proved the most annoying sensation she experienced. During the night she continued to vomit everything taken, including laudanized potions, brandy and water, &c.

19th, at 7, A. M., the pulse was perceptible ; the vomiting continued. At 8, with the assistance of a professional friend, I injected into the median basilic vein six pints of the following solution, at a temperature of 120 deg. :—R. Mur. Sod. 3ij. Subcarb. Sod. 3i. Aquæ, lb. viij. This produced an alteration for the better in the aspect of the countenance ; the lividity of the lips and round the eyes being succeeded by a natural color. The pulse also became more full ; a change, however, which was not permanent. In the course of half an hour, she had a severe chill, with great agitation, resembling in all respects the commencement of a paroxysm of ague. It was not of long duration. During its continuance, the temperature of the body generally was warmer than natural. The vomiting ceased about 10. At 1, the injection was repeated in same quantity, and followed by another chill, with great dyspnoea and distress in chest, and hot skin. This lasted half an hour ; she then became dull and lethargic, and so continued till night. When last seen in evening, she was pulseless, but quiet, and had nothing of the characteristic appearance of cholera. Two dejections during day.

20th, 7, A. M. There had been some vomiting and purging through the night ; the former principally of the fluids taken. Her extremities cold, no pulse at the radial artery, but expresses herself better. During the forenoon, some nutritious liquids administered were instantly rejected. Toward evening effervescing draughts were directed, which were retained better.

21st, 7, A. M. She was found quiet and free from pain. Countenance tranquil ; skin of extremities cool, not cold ; had been without pulse for thirty-six hours. At 9 o'clock, after a consultation on her case, I gave the saline solution to the amount of four pints, at the same temperature as before. This was followed by chill, commencing twenty minutes after operation was concluded, and continuing an hour. During this the extremities remained cold, the trunk becoming hot and continuing dry. No reaction followed. The pulse could be felt, but fluttering. In the afternoon she became drowsy, and in the evening lay on her back with the feet drawn up, breathing rather deeply, with surface universally warm, and pulse at 100, having had no vomiting or purging during the day. She had on the whole the aspect of a patient in typhus, when the comatose stage has supervened.

22d, 7, A. M. She appeared better. The tongue was cleaning, and the surface uniformly warm. At noon she vomited, and threw up yellow bilious matter, partly fluid and in part viscid, adhering to the surface of

the vessel. Soon after a bilious discharge took place from the bowels. After this she vomited about every hour, the discharges from the bowels continuing occasionally through the day. The pulse in the mean time became regular at 90. In the evening the skin was cooler, the countenance more sunk, and the whole aspect of the case less favorable.

22d. From 7, A. M. to 6, P. M. dejections three, bilious ; vomiting frequent, and of same character as that mentioned already. The renal secretion returned after being suspended, or nearly so, from the commencement of the attack. The pulse fell from 90 to 70, becoming feeble. In evening respiration labored, as much so as at any time since operation ; mind feeble and wandering ; voice a whisper ; tongue clean, dry ; complains of throat ; fauces, on examination, appeared inflamed ; can retain nothing on stomach. From 6 to 11, P. M. no vomiting ; voice hoarse ; urinary secretion continued.

23d. Four bilious discharges from bowels, and urine in natural quantity. No vomiting or nausea. Respiration laborious when asleep ; pulse 70 to 80 ; mind clear ; sleeps much ; articulates with difficulty ; skin warm, moist ; complains most of weariness from lying.

25th. In most respects appeared to improve. The tongue became moist at the margin ; the inflammation of the fauces diminished ; no vomiting or purging during day, but great distress about epigastrium, with some tenderness on pressure ; pulse about 72 ; respiration more tranquil ; lethargic. Took thin decoction of arrowroot, with wine, through the day.

26th. In the morning evidently appeared worse, though many particular symptoms remained favorable. The pulse about 70, more feeble ; deglutition more difficult ; drowsiness continued, but when awake she complained of the same distress, which she refers to 'heart.' The respiration is more labored, as if it was difficult to obtain sufficient air to supply the blood in the lungs. In the evening she was more sunk, with obvious difficulty in chest. The pulse became irregular and extremely small, with a peculiar heavy dull bound of the heart against the paries of the chest, which has not before been noticed.

27th. The distress in the thorax was reported to have been severe during night, and in the morning the dyspnœa had decidedly increased ; the respiration was long, slow, and deep, the conjunctivæ injected, and the pulse nearly imperceptible. She died at 9, A. M.

In giving the above account, all particulars respecting the treatment have been purposely omitted, except where some distinct effect appeared to be produced by it. As respects the injection, it would seem that the effects of it had been less immediate in this case than in many others, and it even remains uncertain to what extent the good effects which followed were attributable to its influence. It is on the whole more remarkable that life could have been preserved so long, when the system had once been so completely prostrated, and the vital powers rendered incapable of rallying to any purpose, than that the termination of the case should have been eventually fatal. The distinct occurrence of chill, as an effect of the injection, is on the whole the most valuable fact in a pathological view presented by the case. It obviously suggests venous congestion as the proximate cause of this affection, when occur-

ring under other circumstances ; and furnishes a ready explanation why the abstraction of blood in the cold stage should be found so frequently to cut short the fit. Whether bleeding was indicated in the present case, I shall not undertake to determine. In the first and second operation, considerable quantity was discharged from the orifice ; in the third, the patient was so much exhausted that it appeared best to allow the paroxysm to pursue its natural course.

Boston, November, 1832.

PRATT'S ARTIFICIAL NIPPLE.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—Seeing some time ago an account of an artificial nipple which you recommended very highly, I was induced to procure one at some trouble, for trial in a case of sore nipple, the most painful that had ever come to my knowledge. I followed the printed directions that came with the machine very closely, and no words can express the degree of comfort it has afforded my patient. She is overjoyed that such a thing exists, and is desirous, and so am I, that every mother who has a sore nipple should avail herself of a relief so cheap and effectual. The babe nurses freely and easily by means of this instrument, and without giving the least possible uneasiness either in drawing or letting go the breast. I paid eight shillings for this instrument, and the mother says she would not be without it for thrice as many dollars. Her breast is healing rapidly ; and I hope the motive with which I make this communication will excuse its brevity and simplicity. My object is to invite the attention of my brethren to the only *certain* cure for sore nipples that I have ever met with.

Yours, &c.

RUSTICO MEDICUS.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, NOVEMBER 14, 1832.

DEATH OF DR. SPURZHEIM.

It is our melancholy duty to record the death of a great and good man. Dr. SPURZHEIM, so well known in Europe and America as the companion of Dr. Gall—as a deep thinker and close observer of human nature—as an interesting teacher of moral and intellectual philosophy, the author of several works on the anatomy and physiology of the brain and nervous system—so highly esteemed for his eminent social virtues and moral worth, and so much beloved by all who shared his friendship, has been prematurely removed from this new scene of his contemplated labors.

He died on Saturday evening, at his residence in Pearl Street, after an illness of about four weeks, deeply lamented by the friends he had made during his short residence in this city; his decease will also be a source of sorrow and disappointment to the inhabitants generally, not only of Boston, but also of other cities in other States, where his visits have been solicited, and anticipated with unusual interest.

Dr. S. was born near Treves, in Germany, in 1776. He arrived in this country in September last. Just three weeks ago this day he delivered his last lecture. He was then evidently laboring under serious indisposition, contracted by occasional exposure to the cold night air after being much heated at his lectures. The greater part of Wednesday night he was disturbed by rigors and restlessness; and although too ill to leave his apartments the next day, he was unwilling to submit himself to active medical treatment. This unwillingness was not removed until his disease, which was a typhous fever, had so far advanced that his medical attendants deemed it too late to expect benefit from medication. His brain was chiefly implicated, his reason departed, and he died without apparent suffering. He was anxious to live to accomplish the great moral purposes he had in view, but looked upon death without dread, and with that composure and serenity which might be expected from a Christian philosopher.

On the morning after his decease, his friends assembled at his apartments to consider what proceedings were rendered necessary and proper by this melancholy event; and it was decided that the body should be examined and embalmed, and a bust taken, under the direction of Drs. J. C. WARREN, J. JACKSON, G. C. SHATTUCK, W. CHANNING, G. PARKMAN, J. WARE, E. REYNOLDS, C. ROBBINS, W. LEWIS, J. G. STEVENSON, J. FISHER, W. GRIGG, and S. G. HOWE.

The care and conduct of the funeral obsequies were committed to Hon. J. QUINCY, President of Harvard University, Hon. H. G. OTIS, N. BOWDITCH, LL.D., JOSEPH STORY, LL.D., J. TUCKERMAN, S.T.D., CHARLES FOLLEN, J.U.D., J. BARBER, M.D., CHARLES BECK, J.U.D., and W. GRIGG, M.D.

It was further provided, that the papers, casts, and other property of the deceased, should be committed to JOHN PICKERING, LL.D., N. BOWDITCH, LL.D., T. W. WARD, Esq., and NAHUM CAPEN, Esq., to make such disposition of the same as the law provides in such cases.

It is understood that the remains of the deceased will be interred at Mount Auburn, and an address made on the occasion by a gentleman who enjoyed a large share of his friendship, and was particularly acquainted with his great and important purposes, as well as his private feelings and character.

The medical gentlemen above named proceeded, without delay, to execute the trust committed to them. A good cast has been taken, as well as several portraits. The appearances on examining the brain were such

as are usually attributed to congestion; the minute vessels of the membranes being strongly injected, and presenting an appearance of unusual redness. The edges of the valves of the aorta were slightly indurated, and extensive adhesions of the omentum to the parietal peritoneum about the right iliac region indicated some recent or remote morbid action in that part. Further than this we could discern no mark of disease in any organ that was examined, although three peculiarities of structure were remarked;—one, the unusual size of the aorta, and the natural and proportional, not morbid, thickness of its coats; the second, the smallness of the arteria innominata, which was no larger than the left carotid or left subclavian; and the third, a bilobate spleen. It should be remembered that the destination of the body precluded the possibility of a very minute examination of the two most important organs.

Obituary.—It is with unfeigned sorrow, says the Medico-Chirurgical Review, we record the death of a young, but a most zealous and talented physician of Birmingham, Dr. Josias Allsop, who fell a victim to the fatal epidemic, on the 6th of August last, after a short illness. He had been at Tipton (a village about 9 miles from Birmingham) where cholera was raging violently, and attended the poor there, day and night, for a fortnight, scarcely allowing himself any time for repose. He returned home on Saturday night, the 4th of August, greatly jaded and fatigued, observing to his wife that he had not had more than three hours' sleep during the preceding week. On Sunday morning he seemed drowsy, but he dressed and went out to see some patients—returned to dinner—and appeared to have regained his strength and spirits. At 9 o'clock in the evening he ate a hearty supper, and retired to rest about 10 o'clock, apparently in health. At 4 o'clock in the morning he was called out of bed to see some patients, and returned at 6 o'clock. His wife, who had been recently confined of her third child, was soon informed by the nurse that her husband was very ill, and she instantly arose and went to him. The unfortunate lady was horrified at beholding her husband sitting up in bed, more like a corpse than a living being, and taking down notes of his own case! He expressed himself glad at having an attack of the epidemic, and said he would now be able to understand and to treat the disease better than before. But he soon became extremely weak, and gave up his pen to his wife, while he dictated to her the symptoms which he felt. The violence of the cramps soon compelled him to give over this task also, and after severe sufferings for some hours he fell into a state of insensibility, from which he never after recovered. Thus perished, at the early age of 27 years, a most accomplished and intelligent physician, who, we have no doubt, fell a victim to his zeal in the investigation of a mysterious epidemic. Dr. Allsop wrote several papers on cholera in the London Medical Gazette, and was the author of the article, 'Progress of Cholera in England,' from page 645 to 674 in the last vol. of the Medico-Chirurgical Review, bearing the signature A.

SIR EVERARD HOME recently died at Chelsea, England, in the 77th year of his age. Sir Everard was of Scotch extraction, and his connection with the Hunters brought him into notice at an early period. He was appointed one of the Surgeons of St. George's Hospital, and is well known as the author of various works.

Excision of the Head of the Femur.—Mr. White, of the Westminster Hospital, is said to have removed four inches of the femur in a very bad case of hip disease, which in all probability would have terminated fatally. The boy's health improved after the operation, and a very useful joint was formed between the upper extremity of the femur and pelvis. The limb was not so much shorter than the other as might be expected from the length of the removed portion of bone. The boy at the period of the operation is said to have been about fourteen; he lived eight years after, having the perfect use of the limb, and then died of phthisis.

The whole pelvis, joint, and upper part of the thigh, were removed after death, and are deposited in the Museum of the College of Surgeons.—*Med. Gaz. March, 1832.*

Preservation of Plants during Winter by Spring Water.—A horticulturist in Scotland has availed himself of the heat of spring water, in the preservation of delicate plants. He places boxes of pine wood over the water, covering them with some coarse stuff, and in these boxes he places pots of cauliflowers, lettuce, various sorts of pelargoniums, Indian chrysanthemums, Chinese primroses, &c.; and by this simple and economical method, preserves them all winter. He is of opinion that by means of the temperature of running water, winter gardens may be constructed for a farm or village. Care must be taken to renew the air in the boxes.—*Bib. Univ.*

Whole number of deaths in Boston for the week ending Nov. 9, 42. Males, 26—Females, 16.
Of consumption, 11—fits, 1—lung fever, 5—intemperance, 3—croup, 2—hooping cough, 3—inflammation in the bowels, 2—tumor, 1—old age, 1—cholera malignant, 1—dropsy, 1—liver complaint, 1—infantile, 2—dropsy on the brain, 2—quinsy, 1—jaundice, 1—typhous fever, 3—palsy, 1.

ADVERTISEMENTS.

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Theory and Practice of Physic, by JOHN DELAMATER, M.D.

Anatomy and Surgery, by REUBEN D. MUSSEY, M.D., Professor at Dartmouth College.

Obstetrics and Medical Jurisprudence, by JAMES McKEEN, M.D.

Chemistry and Materia Medica, by PARKER CLEAVELAND, M.D.

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P. CLEAVELAND, Secretary.

Brunswick, October 8, 1832.

Oct. 31. eop5t.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL

IS PRINTED AND PUBLISHED EVERY WEDNESDAY, BY CLAPP AND HULL,

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VII.] WEDNESDAY, NOVEMBER 21, 1832. [NO. 15.

M. BROUSSAIS' ACCOUNT OF HIS OWN DOCTRINES.

In a Letter to the Académie des Sciences, dated August 6, 1832.

GENTLEMEN,—A physician who has passed the best part of his life in laboring for the advancement of the science which he cultivates, formed long ago the design of laying before the Académie an account of his labors, and of the changes which he has seen effected in the healing art.

It was blameable, no doubt, to have deferred till now the accomplishment of that design ; nor can any better apology be offered for the delay than the desire which the author had of rendering those propositions more convincing which he wished to infer from his observations, and the changes of which he is about to speak. He comes, in short, gentlemen, to request a brief audience ; for he has felt the want of your support in seconding his efforts, and those of his co-operators, in a work which he believes to be useful to society. Anxious not to waste the time which you so usefully devote to the progress of knowledge, he will at once broach the subject upon which he is desirous of your consideration.

Medicine, as every one knows, is the science which teaches us to recognize and to treat the diseases of living beings ; but we shall confine our remarks to those of the human species. Medical men, then, are, as it has been said, the ministers of nature ; men devoted to acts of benevolence and mercy ; men whose great object is the doing good to their fellow-creatures. Nothing, consequently, is more natural than that they should be ever desirous of the means.

While yet a youth, filled with these ideas, the individual who has the honor to address you felt himself (even from the year 1804) unpleasantly affected, from his imperfect ability in the military hospitals, to perform the delicate duty which the government had imposed on his conscience. Was it his fault that he was not more successful in the practice of his profession, or the fault of the system in which he had been brought up ? He worked incessantly for five years, and in 1809 appeared his *Histoire des Phlegmasies Chroniques*.

Remote from Paris, where, indeed, he was little known, and a stranger to all manner of intrigue, he had no opportunity of setting forward this work at the time of the *concours* for the decennial prizes, in 1811. He obtained, however, an honorable notice on the occasion—an encouragement which had a powerful effect in supporting his zeal and redoubling his exertions.

The history of Chronic Inflammations is a work wholly experimental. At the time it was written those diseases were scarcely known. Pugol de Castres (of whom scarcely any one dreamt, but who was speedily exhumed upon the appearance of this work) had treated only of suppurations of the visceral cavities : those slow and insidious inflammations which have their seat in the membranous tissues in the chest and abdomen were completely overlooked by the physicians of the age. Pinel had given them no place in his Nosography—there was nothing in lieu of them but certain *organic derangements*. Corvisart, who so eminently possessed the art of exploring disease in the functions, had arrived at no correct notion of them. He knew how to determine the seat of a tumor in the viscera, but he could give no account of its nature, if it was not connected with pulmonary consumption, or malady of the heart ; he paid no attention to what was commonly called organic derangement, while he saw no cause for the slow but gradual decay of the patient, except in a state of debility or cachexy—terms which conveyed to the mind nothing, but which at the same time, unfortunately, supplied wrong indications for the treatment.

The History of Inflammations threw light upon all those points hitherto obscure ; it showed how inflammation was principally instrumental in the origin of those adventitious masses which developed themselves among the viscera ; it exhibited how, under another form, the same inflammation invaded insensibly the tissue of their membranes, and brought on that state of emaciation which was usually attributed to the feebleness of the solids and the depravation of the liquids. It did more ; it proved that those weaknesses and depravations were often curable ; it determined the period of their being so, and the mode of subduing them.

From that moment, science had a new face : *organic diseases*, so vaguely understood before, had now a sense that every medical person could comprehend. The great business, then, was to palliate their direful effects—to prevent them, when their germs became visible ; and practice assumed a rational form in respect to this important section of our physical ailments.

The History of Inflammation was, however, merely the first step towards that reform of which practical medicine stood so much in need. The class of fevers was in no more satisfactory condition to the understandings of men of sense, than those of the cachexies had been. Continued fevers presented themselves in general to practitioners under two very different aspects : the one they attributed to the inflammation of some particular organ ; the other, which they called *essential*, was deemed independent of all local affection. The cause of the first was found in inflammation of the brain, and went by the name of *encephalitic* ; or in that of the lungs, or of the abdomen, with a phlegmonous form—that is to say, with a pulsating tumor and burning heat ; or in that of the peritoneum ; or, finally, in any or all those inflammations which their situation at the surface rendered appreciable to the sight and touch of the practitioner. I say that all these febrile movements accompanying palpable inflammations were apprehended as they should have been—being attributed to their true cause. But *essential* fevers were supposed to have no *locale* : nobody knew to what to refer them ; and in this state of

ignorance it was attempted to characterize them, either after their predominant symptoms, or other data still more obscure. Was the serosity of the bile predominant, they were called *bilious fevers* : was there apparently a superabundance of mucus in the fæcal matter, they were called *mucous*, or *pituita* fevers : was the heat remarkable, they were called *hot fevers* : the body cold—*cold fevers* ; and if the patients at the same time complained of a raging heat within, they gave them another name.

When the powers were sunk in fevers, they were called *asthenic* or *adynamic* : if the body exhaled a repulsive fætid odor, they were styled *putrid fevers*, although many physicians of the best sense rejected with contempt such a denomination, aware that putridity was incompatible with life. Other fevers were *nervous* or *ataxic*, and others called after the country or place where they most prevailed : thus we have had the camp, the prison, the hospital, the Hungarian, the Low Country, fevers : we have had, in short, from the skin affections also, the fevers denominated the petechial, the miliary, the nettle-rash, &c. &c.

In some instances the name and character were derived from a supposed unknown and perfidious agent, which was ever deceiving the vigilance of the physician, and throwing him out of his calculations. Hence the *insidious* form. And when a better name could not be found to describe the danger of the complaint, we had the *pernicious* fever.

Let us not be misunderstood as attempting to depreciate the labors of those who have given us these results, for of such are the materials employed by modern writers for the structure of the evidence of science ; and our gratitude and veneration are due to the laborious men who have supplied us with them. Our object is simply to show in a brief sketch the progress of the human mind in the acquisition of medical knowledge, and to describe the actual state of our art at the period in question. But we may offer our opinion.

And what, gentlemen, can you see of philosophy in the proceedings of the old school regarding these supposed essential fevers ? Can you see in them a *science* ? Alas ! there is nothing there but a chaos and confusion ; nothing but an exhaustless source of controversy, not merely on the nature, but, what is far more serious, on the treatment of disease. In fact, anything like agreement was rare ; for in one and the same disorder, some would take their indications from the biliary or mucous secretion, while others would have recourse to the nervous system, or the debility, or putridity, of the patient.

Such was the state of medical science when, in 1816, was published the first edition of the *Examen des Doctrines Médicales*. This work, the fruit of a more extended experience, went far beyond its predecessor the *Histoire* : it inveighed strongly against the vagueness, the contradictoriness, and the insufficiency of the prevailing doctrines. It preached up the necessity of following another method in appreciating the symptoms of disease, both chronic and acute : it counseled not to proceed any longer in medicine by the formation of groups of symptoms. It showed, in short, that nothing was less reasonable than to call a group of ten or twelve symptoms the *cause* of the material alterations which were found in the organs after death.

The work in question proposed to consider fevers, as inflammations

are considered ; to determine the seat of the latent irritation which gives rise to the febrile state—a state which is itself but an excess of irritation, caused principally by the heart ; it traced fever to that latent local irritation in the viscera, as its cause, and suggested to take for the basis of the proper treatment, the influence of external agents on the *mobile* of the febrile condition, and consequently on the fever itself.

This method was eminently simple, unique, and consequently philosophical. Its novelty could not but raise a violent storm against it ; but, entrenched behind an imposing mass of facts, it stood its ground, and the history of the latter periods of French medicine can give a good account of its success.

One very remarkable circumstance deserves to be mentioned. In 1812 began that work which was presented to the world as a monument of French medical science—the great *Dictionnaire des Sciences Médicales*. Up to 1817 it bore the uniform coloring of Pinel's doctrine. From that time forth it became mottled with a mixture of the principles set forth in the *Examen*. Scarcely is it finished, when forth comes the *Dictionnaire Abrégé*, in which those principles predominate to such a degree, that they absolutely make up the greater part of its bulk. In the great Dictionary, fevers are still *essential* ; they are but symptomatic in the Dictionary abridged ; and the Dictionary in 18 volumes, which comes next in order, reduces those fevers considerably, and, moreover, everywhere displays the banner of the doctrine which the *Examen* advocates.

[M. Broussais then proceeds to notice other works of his, and among them his recent tract on the Cholera ; after which he goes on :—]

But, gentlemen, it is time to give you a summary and comprehensive view of the method we follow in the distinction and treatment of diseases, which we shall now attempt to do in the most succinct manner we are able.

This method has for its guides two phenomena which never abandon it at the bedside of the sick—motion and sensation. In fact, as long as the individual is alive, his animal substance will be affected by the influence of external agents, and hence will result, under given circumstances, certain perceptions for his consciousness. The sick man suffers ; but as sure as he suffers, observation describes in his suffering organs movements different from those of the sound state ! The sick man takes a remedy which does him a service—his sufferings diminish ; and *vice versâ* : but in the former case, his organs will be less disordered—they will more nearly approach the *normal* rhythm ; while in the latter, they will tend to more and more disorder, and the disturbance will spread from the first organ to several others.

This being settled, the bases of medicine are settled also. No disease is ever in the first instance general ; it always begins in some one organ, and often in a single tissue of that organ, even when it depends on a cause which has effected an alteration in the fluids—as in the case of smallpox. If, then, the practitioner make use of his senses, and find out the primitive seat of the disorder, and if especially he ascertain the exciting cause of this rising disturbance, he succeeds most usually in arresting it, and the malady is stifled in its cradle. It is thus that the new French method has reduced, in a manner truly wonderful, the

number of severe fevers, or rather of those bad symptoms which are indeed now seldom met with, except where assistance has been tardily given, or where it has been entirely rejected. This is a fact well known ; it is attested by all practitioners who have to deal with fever in the hospitals, civil and military. It is rare now to find among them any general or essential fevers ; they are all reduced to affections simply local.

But what particularly distinguishes this method is, that it rejects no means, how empirical or powerful soever they may appear. We do not become bound to employ only one kind of remedy, for we believe that all kinds have their proper uses ; but we take pains to appreciate their effect, and to accommodate them to the susceptibility of the organs disturbed. The action of the modifiers of the constitution is our constant study, and their effects on motion and sensation our guide in estimating their value. Whatever is injurious to the case in hand is thrown aside ; but we do not reject its possible use in other cases.

Thus we have no system *à priori*, no preconceived ideas, no oath *in verba magistri*. If we have adopted for our guide the irritation and ab-irritation of the tissues, it is because we cannot by any possibility find others better.

We entreat you, gentlemen, that you will each individually reflect upon this subject, and ask yourselves how you generally judge that the prescription of your physician is or is not suited to your complaints. If you feel more fever, more agitation, less repose, and more suffering, you say to him, ' your remedy, sir, does not appear to me to be suited to my case ; ' if you feel, on the contrary, more calm, less agitation, and less suffering, you say to him just the reverse, and express all your gratitude. Well, then, gentlemen, these modifications, which you have each of you experienced, resolve themselves ultimately into the simple facts of motion and sensation (*le mouvement et le sentiment*), and the system which we pursue is nothing more than the interpreting their indication in maladies. But perhaps you will say, have we not had the system from the earliest times, and has it not been practised by all the sects ? Common sense would suggest such a question ; the truth, however, must be told—it has *not* been so. In a large number of cases it was usual to say to the sick, ' have patience, it is the remedy that is operating.' In others, as in the gout, for example, the expression was, ' I can give you no relief—your sufferings are necessary for nature's purpose, and you must bear them.' In divers acute diseases, where the remedies only augmented the fever, and the other bad symptoms, in place of soothing him, the practitioner would congratulate the patient, and tell him that it was necessary to keep up the natural powers, in order to effect a salutary crisis. How often have unfortunate creatures, parching with thirst, and dying for cold drinks, been obliged to gorge themselves with hot draughts, which they rejected with horror ! This has been the practice, gentlemen, not very far away from you. Before the Cholera reached France, it was treated in this way : it was only with the greatest difficulty, and by dint of undeniable success, that the physicians of the north and east consented to cool their patients.

There are still many physicians who, in costive and painful states of the digestive organs, prescribe stimulants under which the stomach suf-

fers, and who bid the patient be of good cheer, as he will be benefited by his sufferings in the end. Others there are who have more regard for their patients' troubles, but do nothing more than change the remedy, substituting one mode of punishment for another (always preserving the principle), but never rendering them any real relief.

No, gentlemen; the art of sparing the sufferings and tortures of patients is not so ancient as you might suppose: it is a modern art, and an art which has made but little real progress, except under the happy influence of the method which we cultivate.

This method, gentlemen, is called the *physiological*, for it observes and deals with life in the abstract, the life of the organs, and *in* the organs, with reference to the agents which can exercise any influence upon them.

I have now laid before you, gentlemen, the principles of the *physiological* medicine—that medicine which good sense approves, and which keeps pace with the intelligence of the age—that medicine which has necessarily been adopted by all the ablest members of the profession, and by all whom their vocation or their circumstances induce daily to come amongst us. It remains for you, the *élite* of our men of science, to extend to it your encouragement. Only deign to consider it well, and you will be convinced that here is no chimera—that it has a real existence, and is of a nature to extend itself, and to attract the regards of all men who love to contemplate the advancement of all the predictions of the human mind.

BROUSSAIS.

SULPHATE OF COPPER IN CHOLERA.

BY JAMES MORRAH, M.R.C.S.

MR. EDITOR—Believing that the following facts may lead to a more successful mode of treating the epidemic, I request that you will allow them to be made known to the public through the medium of your very useful publication.

On the morning of the 17th August, I visited a young woman, a dress-maker, 20 years of age. She had been under medical treatment all night for a severe attack of cholera. All the symptoms were present, and strongly marked. I had contemplated trying the sulphate of copper, in a few doses, in the first case I met with, having seen all the modes of treatment recommended fail. I ordered a scruple in an ounce of water to be given. The gentleman who was in attendance reported to me that it remained in the stomach a quarter of an hour, a strong proof of the diminished excitability of that organ. When the vomiting ceased (which was occasioned by the sulphate), the skin became warmer, the pulse more distinct, and the severity of the spasms very much mitigated. The stomach was now quiet. Two grains of calomel, and one tablespoonful of beef tea, were given every half hour; at night three drops of croton oil; soon after which the bowels began to act, exhibiting some improvement in the secretions. This patient very slowly recovered, but the urgency of the symptoms soon subsided after the vomiting produced by the sulphate of copper.

A. Cook, 30 years of age. August 19.—In this case, likewise, all the symptoms were present, and very severe. The same treatment was pursued as with the former patient, except that she had neither sedative nor stimulant, both of which had been administered to the former in the commencement of the treatment. The patient was able to come down stairs in a week.

Alderidge, 68 years of age, a cooper, August 26.—In consequence of a complete misrepresentation of his case, was ordered calomel, eight grains, with one and a half grains of opium. In an hour and a half after, the spasms became so severe that I was sent for. I found it a case of well-marked cholera, *without vomiting*. As his stomach was quiet, I ordered a purgative draught, and desired they would wait the result. I saw him four hours after: the spasms very troublesome, rice-colored stools, livid hands and face, &c. I gave him the sulphate, which vomited him in two minutes; soon after [which the spasms ceased; indeed, he complained but once after. The calomel and croton oil were given as before, and he appeared to be going on well when I saw him last at 10, P. M. On the 27th he got out of bed at 3 o'clock, fancying that he wanted to make water. The attendant with difficulty got him into bed again. He died at half past 5.

On examination of the body, the lungs were found to have suffered extensively from frequent attacks of inflammation. The abdominal viscera presented the appearances usual in cholera.

King, about 25 years of age, September 1st, was found in a state of complete collapse by my assistant, Mr. Green, a very active and zealous young man. He administered to him the sulphate, which produced an effect like magic: this was followed by calomel and croton oil. At 7 o'clock, the family where he lodged thought him so well that they might get rid of him; they therefore sent him to the infirmary in Mount Street, Grosvenor Square. Mr. Green called there to report what he had done. There he was put under their own system, which, after a little time, was given up for one which succeeded in restoring him. This, I understand, was small doses of sulphate of copper and hydrocyanic acid.

It may be asked why I adopted the above treatment. My answer is, I saw that no reliance was to be placed on any plan of treatment hitherto adopted. I had often witnessed the prompt advantages gained by a brisk emetic in severe attacks of remittent fever, where the stomach had been so irritable as to reject everything. I determined to try the effect of an emetic in this devastating disease. Past experience pointed out to me the sulphate of copper, as a powerful emetic, and one, from its astringency, likely to restrain, in a great degree, the effusion, for secretion it cannot be called, into the stomach of the peculiar fluid which forms one of the characteristics of the disease. There are other advantages, which it is not necessary to enter upon. I hope I have said enough to induce others to try my mode of treating this enemy to the human race. I understand they are using the sulphate of copper now in the Mount Street Infirmary, but not in the same way.—*London Medical Gazette.*

CLINICAL NOTES.

BY JONATHAN SIBLEY, M.D. OF UNION, MAINE.

[Communicated for the Boston Medical and Surgical Journal.]

Puerperal Convulsions.

A LARGE healthy woman, twenty-three years old, who had reckoned her full time with her first child, finding herself indisposed in the night, called me very early in the morning. I found her with slight pains, walking about the house, and occasionally seating herself in a chair. In this situation she was attacked with a violent convulsion when I had been with her but a short time. I immediately took from her arm a pint of blood, and then carried her to her bed, entirely senseless.

After stating to the friends and attendants, as well as I could, in a few words, the situation of the patient, and endeavoring to fortify their minds against another attack, which we had much reason to fear; I made an examination, and found, to my great consolation, the os uteri *somewhat* dilated.

I sat attentively by my patient, and at every pain I endeavored to dilate the os uteri, and to increase the force of the pains by gently irritating the parts with my fingers. As the pains continued and increased in strength, the os uteri dilated, the child advanced, and the woman roused a little from her lethargy; but a second convulsion, in less than an hour from the first, checked the progress of the labor, and disappointed our hopes of a speedy delivery.

The woman had but feeble pains, and repeatedly very strong convulsions, two or three hours longer, when I felt, very sensibly, the responsibility of my situation, and told the friends and attendants that 'we should not succeed in this way.'

The os uteri being fully dilated, and the child presenting naturally, I very easily applied the forceps, and in a short time, with the aid of feeble pains, relieved the sufferer. The child was alive and well, and cried like any other child. I tarried with this woman several hours after she was delivered, and during this time she had no convulsions, but I was unable to make her know anything of what had been done.

The night following she had two or three convulsions more; but the effects of all went off in a few days, and she had a good *getting up*. This woman had a second child and did well. She never had anything like convulsions except at her first confinement.

P. S. Since writing the above, I have had another case quite similar; it was a first child—was managed in the *same way*, and with the *same result*. These two women continue to have children yet, but have no convulsions.

Trigemini.

A large healthy woman, who had borne two pair of twins, and several single children, became pregnant with three children. When she had reckoned a little more than eight months, she was taken in travail and sent for help. When I visited her she had been delivered of one child without any difficulty.

I tarried with this woman more than twenty-four hours before any other child was born, or before her situation was fully known. We were all satisfied that she would have a second child, and the woman occasionally said that she should have *two more*, but no one thought that her prediction would prove true. With the aid of feeble and distressing pains, I succeeded in obtaining a second child. When I attempted to take away the placenta with the two umbilical cords, I was defeated in my repeated trials ; shortly, however, I found the cause of my disappointment in a *third* child, which still remained in the uterus.

The abdomen and uterus of this woman had been very much distended by the three children ; but after two of them had been born, they were much relaxed and quite flabby, so that the feeble and irregular contractions of the uterus, which continued after the second child was born, had but a slight effect upon the third child, which still remained in utero.

The waters of the third child were not yet broken ; the feeble and irregular pains had but little effect, and I could see no flattering prospect of a speedy delivery. But these difficulties did not detain us long. Blood soon gushed from the vagina in such a current, that I was sure the woman could bear such a loss but a few minutes. Alarming dangers attended us, and a death much more alarming was soon to be expected. No time could be lost. I introduced my hand far into the uterus, and seized the child by one foot (the waters being unbroken), turned it, and took it away without any difficulty. I think I could not have been engaged in this operation more than one or two minutes. As soon as the child was born, the blood ceased to flow, and the placenta (one double and one single) came away in a reasonable time.

This operation of *turning* is the first and only one of the kind that I ever performed, to save a woman in the case of uterine hæmorrhage ; and the ease and expedition with which it was performed, depended, I think, in a great measure, on the size of the child, which was very small. The vital fluid, in this case, was nearly exhausted ; but the woman recovered, and is now the 'nursing mother' of three female children more than six months old.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, NOVEMBER 21, 1832.

RECORD OF CHOLERA CASES.

WE have received a very satisfactory document from Albany. It is an authentic record of all the deaths by cholera that have occurred in that city, arranged numerically in the order of their occurrence, making in all 336—those only that occurred in persons under 16 years of age being omitted. Of these latter, it is understood there were about 110. The sex, age, place of nativity, habits, temperament, and other particular circumstances of each patient, so far as could be collected, are briefly and

explicitly stated by words or signs, so that the whole statistical history of the fatality of the disease in that place is contained in about seven quarto pages. The names, residence, and occupation of each patient are also on record, though, from motives of delicacy, they are not published. The object of the exclusion of the younger portion of the victims of this malady is twofold. In the first place the epidemic prevailed in the summer season, at the period when the common and infantine cholera are most rife; and hence much difficulty was found in obtaining an exact account of the proportion of deaths among children which should be set down to the malignant form of the disease. The other reason was that the whole investigation has been made by the New York State Temperance Society, with an express view to ascertain the degree in which the use of ardent spirits may be regarded as predisposing to the disease, or disarming the system of its means of resisting it; hence the object would not be aided essentially by the additional labor of collecting the facts attending the fatal cases in younger subjects.

The very thorough manner in which the Executive Committee have executed this task does them great credit, and it is needless to show how great a fund of important facts might be elicited by similar efforts on the part of other Societies in other States.

The following is an abstract of the cases, and the testimony of the faculty to the truth of the record.

Males, 213; Females, 123. Native White, 171; Do. Colored, 24. Foreign, Irish, 108; English, 15; Scotch, 4; Welch, 2; German, 8; French, 1. Unknown, 3.

Intemperate, 140; Free drinkers, 55; Moderate drinkers, mostly habitual, 131; Strictly temperate, 5; Members of Temperance Society, 2; Idiot, 1; Unknown, 2.

Premonitory symptoms, diarrhœa, certain, 282; remainder unknown.

Ages. 16 to 20—11; 20 to 30—70; 30 to 40—108; 40 to 50—55; 50 to 60—47; 60 and upwards, 36; Unknown, 9.

The undersigned physicians, members of the Medical Staff, attached to the Board of Health, residing in the city of Albany, have examined the preceding document of facts, and as such we take pleasure in recommending its publication and general circulation.

JONA. EIGHTS, M.D. *Chairman of the Medical Staff.*

WILLIAM BAY,

HENRY GREENE,

C. D. TOWNSEND, M.D.

J. JAMES,

JOEL A. WING.

PETER WENDELL.

BARENT P. STAATS, *Health Officer.*

HENRY BRONSON, *attached to North Hospital.*

In this State, the Medical Society has commenced a series of measures to obtain accurate information on this subject, by issuing the following circular. It is to be hoped that this paper will not meet the fate of most similar addresses—be read, approved, laid aside and forgotten; but that

each practitioner will feel himself called on to add his share to the common stock, from which he as well as his fellow men expect to derive benefit.

Boston, October 12, 1832.

SIR,—The Counsellors of the Massachusetts Medical Society have adopted measures to collect information in regard to the epidemic which has appeared in this country, in the season past. Directed by them, the undersigned Committee have the honor to address to you the following questions :—

1. What have been the prevailing diseases in your sphere of practice, since January 1st, 1832 ?
2. Has there been an unusual tendency to cholera morbus, or to diarrhœa, within your knowledge ?
3. Have you seen any cases of malignant cholera, within the period above mentioned ? In what circumstances did they occur ?
4. Have you seen any cases of disease with symptoms peculiar to malignant cholera in any former period ?
5. What treatment have you found most useful in the disorders named above, so far as you have witnessed ?

The Committee respectfully solicit you to enter into detail, with a minuteness proportionate to the importance of the disorders you have had opportunity to observe. And you will please to direct your answers to George Hayward, M.D., Corresponding Secretary of the Massachusetts Medical Society.

We have the honor to be your very obedient Servants,

(Signed,)

JOHN C. WARREN,
GEORGE HAYWARD,
E. HALE, JR.

REMAINS OF DR. SPURZHEIM.

AFTER the bust was taken of this celebrated stranger, and a cast made of his brain, the body was properly embalmed and deposited in a leaden coffin, which was enclosed in another of rich mahogany. The abdominal viscera, the thoracic viscera, and the brain, were severally preserved in separate cases. The brain was unusually large, and weighed *fifty seven ounces*.

At a meeting of the Boston Medical Association, especially called on this occasion, and held at the Massachusetts Medical College, where the remains of the deceased still lay on the 14th of November, the following resolutions were *unanimously* adopted, and ordered to be published.

The Boston Medical Association having received with great satisfaction the visit of the late Dr. G. F. SPURZHEIM ; and their acquaintance with him having inspired them with high respect for his researches in Anatomy and Physiology, and a deep interest in his opinions on the moral and physical improvement of man ; therefore

Resolved, That we view the decease of Dr. SPURZHEIM and the termination of his labors, as a calamity to mankind, and in an especial manner to this country.

Resolved, That a respectful letter be addressed to his friends, in Europe, by the Secretary of this Association, detailing an account of his labors, his illness and death, and the expressions of public respect paid to his memory.

Resolved, That this Association, as a body, will attend the funeral obsequies of the deceased.

Resolved, That we recommend to our fellow-citizens the opinions of the deceased, on the improvement of our systems of education; and especially what relates to the developement of the physical powers and moral dispositions; and as they can no more expect to hear them, from the lips of our lamented friend, that they lose no time in making a practical application of them, to the existing state of our institutions, for the culture of the human mind.

At 12 o'clock on Saturday, November 17th, the members of this Association assembled at the College, and together with the students attending the medical lectures, followed the body to the Old South Meeting House. At 3 o'clock in the afternoon this ancient and spacious edifice was crowded with citizens who had assembled to pay the last tribute of respect to the departed. A very just and impressive eulogy was pronounced by Dr. Follen, Professor in Harvard University; and an appropriate and beautiful ode, composed by Rev. Mr. Pierpont of this city, was sung by the Handel and Haydn Society.

After these services the body was borne by a select number of the medical friends of the deceased, and followed by the Medical Association, the gentlemen who had the conduct of the funeral rites, and a large concourse of citizens, all of whom had taken an interest either in the labors, the character, or the fate of Dr. Spurzheim, to the receiving tomb of the Mount Auburn Cemetery. Thus closed the earthly career of an individual who made man his study, and the happiness of man the chief object of his life and labors.

LOCOMOTION OF MEDICAL MEN.

THE following extract from the London Journal of Belles Lettres will not be unacceptable, as a relief from the more serious subjects which the times have called us recently to serve up for the instruction of the reader.

SIR WALTER SCOTT has remarked, or is said to have remarked, that the only thing in nature he does not understand, is, Why a dog turns himself round three times before he goes to sleep? As a pendant to this might be given the query of, Why a medical man goes to sleep without turning himself round at all? oscillating backwards and forwards between the county town and the village, like an oyster between the panels of his shell, and, like that respectable conchologist, never clearing the rock upon which destiny first cast him?

All civilized beings, with the exception of medical men, have their seasons for locomotion, their recreative journeys, their accredited furloughs from campaign duties; but this proscribed race, having by strange fatality been excluded from the general amnesty, now appear even themselves to acquiesce in the unjust decision, and to be satisfied with astronomical motion,—the consciousness that they swing through the blue ether with a velocity equal to that of their most volatile patients, and as the earth turns round upon its axis, *'turn with it, heads or tails!'*

It boots not to the faculty that the steam-engine has gone far to annihilate geographical distance—that a highway has been run from the standard in Cornhill to the Theban obelisks—and that America, in the exuberance of courtesy, has literally turned herself inside out to the admiration of strangers, having by the aid of canals and rail-roads made her inland towns lie coast-wise open to observation. They must not touch the

forbidden fruit, lest they should be amerced in the fee simple of custom and credit ; but must continue to draw mathematical lines in the parallelograms of their respective districts, and to practise the monotonous seesaw of the ursine sloth with the inveterate assiduity of the beaver.

The citizen has his July, in which he visits the rarities of other kingdoms ; the country shopkeeper makes his annual escape from the counter to pick up pebbles on Margate beach ; even Oxford and Cambridge have their gaol release, when the disemboгуed students do the duty of loyal subjects, by increasing the custom-dues at their respective ports of embarkation, on pilgrimages to the uttermost ends of the earth ; whilst men, peculiarly fitted by education and practical talent to derive enjoyment from a cosmopolitan survey, and to increase knowledge by coining the golden dust of opportunity into a legal tender, stay forever at home, as if afraid confiscation of property would visit the misdemeanor of breathing the air of a distant province. Now this is a crying evil—a sin or a shame, as it may chance to be by choice or necessity : *voyons un peu*.

The causes which induce medical men to stay at home, when all the rest of the world choose to travel, appear resolvable into three : to wit, the love of science, the love of human nature, and the love of money.

It may be said of the love of science, that it may possibly prompt a medical man to wish to see every sickness at an end—to finish his work ; in which case he might chance to find himself in the predicament of the countryman, [who stood in a doorway in Cheapside ‘till the crowd had gone by.’ But it might be replied to this, that, however engrossing the details of professional routine, an occasional intercourse with the leading men of his class, with an opportunity of verifying some of the new theories always afloat upon scientific subjects, seems absolutely required of the country practitioner by the duties of good citizenship. If he be a man of bold and original intellect, his reach of mind, often nearly valueless in the drudgery of provincial practice, may refresh itself and benefit others by an occasional divergement from his beaten track. If, on the contrary, of inferior calibre, one who follows scrupulously the data of the schools, who feels responsibility a weight, and decision an embarrassment, it appears still more incumbent on him to freshen his powers by recurrence to the fountain head of knowledge—to make himself conversant with the nascent doctrines, their tests and authorities—shake himself in the light of day from the dust of prejudice—look up at the luminaries of his system, and set his watch by the sun. There is always something to teach or to learn in London, the Mammoth of cities. The truths ever orally circulating there in scientific society, would form a stock in trade of a handsomer description than the *distant* or *disaffected* are fain to imagine. Conversation in London is to the mental appetite what human flesh is said to be to the palate of the lion—nothing is tasteworthy after it. Whether from the rapid accumulation of facts passing beneath their notice, or other causes, the London practitioner seems to possess an eye as quick in detecting disease, as is that of the experienced lapidary in ascertaining the gem : he is so conversant with its appearance under every variety of form and color, that he decides as by intuition ; whilst the country artisan, of perhaps not meaner powers, having learned his business through a slower medium, must apply his test ere he can authenticate it. It is worthy of notice, that sick folks in the country are perpetually finding out, when they repair to the metropolis for relief under their several ailments, that they have been injudiciously treated in the provinces ; and it is likewise noticeable, that when a London physician, considering a case

from the country, prescribes a change of treatment, it is usual to legislate for his patient upon a broader principle, to merge local disease in general, and to carry the war from the outposts to the citadel. These anomalies would happen less often, probably, if the faculty in the provinces, as well as their patients, made a religion of an annual journey to London; or occasionally went a little farther still, to investigate the phenomena of a disease in its locality, east or west, as it might happen. It seems ungrateful to allude to a reversion of a decree of the lower courts in the great emporium of science, when we consider the exceeding fatigue of the life of a country practitioner. 'Rather than submit to the slavery and drudgery a provincial goes through,' observed a London practitioner to me, 'I would slide through life upon the sum that my education cost.' But why does the country practitioner submit to it? Why does he not wrench off at least a tithe of the round year for his own private benefit? Why flicker about like the flail of a threshing machine, rooted to his tiny locality? If he will devise the punishment of a suttee for himself, the public can only say, like Dan in the Irish legend to the flying eagle who soared up with him till he was tired, 'My dear sir, who axed you?'

The love of human nature, set forth as a second objection to the locomotion of medical men, may be met on its own ground, by the old adage that charity begins at home. Self and family *versus* the public, would, in such a cause, gain the verdict in any court of equity in Christendom. I do not understand why a man should be expected to stay at home always for his patients, unless they return the courtesy by staying at home for him; the golden rule is quite forgotten by those who are selfish enough to desire it. The enjoyments attendant upon change of scene are so numerous, and its physical effects upon the frame so beneficial, that it is a grievous injustice to any class of men to require their abiding presence on one spot of earth. An unrelieved residence in the same place *belittles* the mind (to borrow an Americanism). The sanative effects of travel on the mind resemble those of a vapor-bath on the body, which purifies from the miasma of contagion, and gives tone and elasticity to the fibres. Did ever any created being hear of man, woman, or child, however predisposed to illness, staying at home, lest he, she, or it, should not, under possible disease, have the advice of the usual medical attendant? Would not such an iota in the conduct of any one make his next of kin look about him a 'trifle?' Would it not be too improbable for the writer of fiction to work up in the way of illustrative peculiarity? And yet, this is the principle a medical man must act upon, if he tarry at home out of tenderness to the feelings of his patients. Let his patients go one way and himself another—trusting to Providence or the police—and either party will pick up new acquaintances to physic or be physicked by, and both will be merry. 'How very kind everybody is!' said a kinswoman of mine when the boatmen on the Medina took especial care of her during an aquatic excursion; and she was right—people are kind, very kind (till they are affronted)—it is human nature to be so: any action contrary to kindness we reject as foreign to our constitutions; for lo! as saith Confucius, we call it '*inhumanity*!' and there is no question but that folks who fall sick on journeys are, for the most part, satisfied with stranger medical men; and when they write to their friends, will declare, under their sign-manual, that Mr. So-and-so was uncommonly pleasant, and they felt quite at home with him, &c. &c. The besetting sin of medical men seems their *exclusiveness*; each, fancying no other

can manage a matter as well as himself, would fain be persuaded that a suspension of the laws of nature would follow his temporary absence from the sphere of his diurnal rotation. A ludicrous anecdote, illustrative of this, occurred a few years ago at Brighton : A little boy, ill with quinsy, was attended conjointly by a physician and surgeon ; the crisis of the disorder came—messengers were despatched for the faculty—the physician arrived first—the child was at the last gasp—the physician opened the throat, and gave him instant relief. Presently the surgeon came running, and, when he heard what had been done, expressed disapprobation, saying, as audibly as embarrassment of breathing allowed him, that it was a ‘ very indelicate thing for a physician to perform any surgical operation whatever.’

In the third objection, the love of money, or rather the fear of losing it, lies, perhaps, the gist of the question. But here, if I possessed the pen of a ready writer, I should be proud to employ it in eulogy of the benevolence of a class of men of whom ‘ many have gladdened as well as lengthened life ’ (to generalise the elegant compliment of Pope to his friend Arbuthnot). ‘ Let the thief go first, and the executioner follow,’ was the reply of Diogenes to a question of precedence between a lawyer and physician. This was, to be sure, but an equivocal compliment of the cynic ; but it proves, that early in the history of the world a difference was acknowledged between the rapacity of the two classes. The faculty, however, no longer follow their vocation on foot, but are like the ancient Britons in their mode of warfare, ‘ some slay in chariots, and some on horses.’ From the days of Linacre to those of Warren, the names of medical men eminent for liberality, as well as talent and sagacity, are prominent in the splendid catalogue of British worthies. Hunter and Ratcliffe, Mead, Heberden, Arbuthnot, and Fothergill, are but a few of the muster-roll. But for household pleasantness and minor hospitalities, commend us to the manes of Sir Walter Farquhar ! the courtly Sir Walter ! who had counted the pulses of all the duchesses in the kingdom, but never forgot the face of an old friend ; his solitary fault was swerving a little from the perpendicular when he found himself on the shadowy side of fourscore.

The College of Physicians was founded in 1518, about which time the study of medicine in this country may be considered to have made for itself a ‘ local habitation.’ This date, little anterior to that of the establishment of Protestantism in England, gives nearly the same chronology to the physic and divinity of the country. The students of the latter, if we believe their affidavits when they enter on professional duties, deny a search after temporalities to be their main object in entering the profession ; whilst the medical men never pretend to anything more than a terrestrial vocation. The clergy have a state provision, the faculty provide for themselves. The education of a medical man is prolonged and expensive ; and when he has received it, being for the most part a younger son, he is considered by his kindred to have the title-deeds of his estate handed over to him. The first years of practice are seldom lucrative, the latter are not to be depended on in a profession unavailable by proxy, that has no sinecures to bestow, and admits no slumbering on their laurels to its soldiery ; yet, with all these drawbacks, it is a curious fact—a solecism in a page of the book of human life—that the liberality of medical men, both in *commission*, if we look only at public grants in their names, and in *omission*, if we note in various neighborhoods the laxity with which they press money claims (albeit always expected to be forthcoming themselves at the call of the public), will brave comparison with

the liberality of the spiritual pastors of their respective vicinities. I will not press the parallel further, at a time when the tide of public opinion, (or say, if you like it better, detached currents of public opinion,) are setting in like a *maelstrom* upon the subject of the temporalities of the church of England; but will observe upon the particular of liberality, that the faculty have given 'good measure, pressed down, and shaken together, and running over,'—and may it be meted unto them of the same! *Et c'est tout*, as the French say when they have expounded themselves, and 'to return to our mutton: '—if the resignation of a few weeks annually would diminish a medical man's income by striking off more than the average gains of those few weeks, excursions must be postponed, like Dr. Drowsy's sermons, to a fitter opportunity; for, so far from travel then benefiting the health and increasing happiness, it would be very possible, with a foreboding of pecuniary shortcomings, to commit indigestion under the eye of Mont Blanc, and to jaundice the liver with the spray of Shauflhausen. But I contend that such would not be the case. 'Cut boldly,' said the augur to the King of Rome, and he severed the whetstone accordingly. Any medical man determined to free himself from his *strait-waistcoat* would be little likely to lose patients of the more substantial class; and of chance customers he would have neighbor's fare when his brethren respectively journeyed likewise. And I doubt not but such an enterprising individual would soon make himself so popular and *distingué* by his novel line of conduct, as to furnish an argument on the subject against which one might lean one's back as a post.

When I contrast the joy and health attendant upon an excursion down the Rhine, as set forth by Dr. Granville, to be performed at a very fractionary charge of time and money, with the wearisome toiling at the oar of a country practitioner along the warm channel of his daily progress, I console my benevolence by indulging the fantasy of Soame Jennings, who wrote a whimsical essay to prove the doctrine of transmigration by the well-balanced retribution it afforded for every misdemeanor. He felt certain, he said, that many a court lady would revive in the person of one of her carriage-horses, and that the great Khan of Tartary, the desolator of Asia, was at that instant chased by the overseers from parish to parish in search of a settlement, under the semblance of a weary traveling woman, with two small children hanging at her back, and two in her arms. Hence I entertain no doubt that the individuals so hardly dealt with, of whose untoward fate we so amiably volunteer a project of amelioration, are now only expiating offences against the law of kindness, committed when, in a prior state of being, they inhabited this earth of ours as *nervous ladies*, whose egregious selfishness prompted them to oust their medical attendants from the shelter of their own roofs at all hours of the night and day, without regard to times and seasons, to administer to imaginary ailments!

Whole number of deaths in Boston for the week ending Nov. 16, 32. Males, 20—Females, 12.

Of spasms on the lungs, 1—inflammation on the brain, 1—typhoid fever, 2—croup, 2—unknown, 3—consumption, 5—syphilis, 1—rheumatic fever, 1—apoplexy, 1—hooping cough, 1—dysentery, 1—throat distemper, 2—hydrocephalus, 1—infantile, 2—lung fever, 2—scarlet fever, 1—worms, 1—paralysis, 1—cholera, 1—inflammation in the bowels, 1—teething, 1.

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VOL. VII.] WEDNESDAY, NOVEMBER 28, 1832. [NO. 16.

COMPARATIVE TREATMENT OF CHOLERA.

Comparison of various Modes of Treatment in Cholera.—Efficacy of Salines. By P. BOSSEY, M.R.C.S.

IN prosecuting an inquiry of such importance to the welfare of the community, and of such deep interest to the profession (the saline mode of treatment in cholera), it cannot be too generally lamented that decisive and final opinions have been hastily promulgated, by some extolling the practice as in almost every case infallible, and by others declaring it totally inert and injurious.

Considering that its employment has been hitherto by far too limited to warrant its general assumption or rejection, the object of this paper is to add a few facts to those already published, and thereby promote the laudable purpose of deciding correctly upon its efficacy.

Cholera appeared in the Convict Hospital Ship, Woolwich, about the middle of March, but occurred in isolated cases until the 5th and 6th of May, when its irruption became general and the cases numerous.

Of about eight hundred individuals, of whom this establishment was then composed, a very great majority were affected with premonitory symptoms. Many facilities being offered, the utmost vigilance was employed to secure their early detection. All the men were medically inspected three times daily: if any individual had three evacuations while at labor, he was placed under observation, and his dejections examined. By this means the cases of sudden, profuse, and serous diarrhœa, amounted for some time to at least 30 daily. Some of these had vomiting, faintness, and cramps. Most of them were attacked in the morning, and were treated by a single dose of 5 or 6 grains of calomel combined with 1, 2, or 3 of opium, followed by two ounces of the saline mixture every hour; and, if the purging continued, a starch enema, with 2 drachms of the carbonate of soda, 4 of common salt, and 1, 2, or 3 of the tincture of opium; with gruel for diet. Under this regimen, with subsequent small doses of rhubarb and castor oil, most of these persons recovered, and were never admitted or reported as cholera.

Satisfied that as much was effected as the most unremitting and assiduous nursing, and the steady employment of remedies, could accomplish, the following table and remarks are offered, as affording the results, carefully and impartially collected.

Treatment.	Cases.	Deaths.	Recov.
By Bleeding and Stimulants	13	5	8
By Stimulants only	4	1	3
By Bleeding and Salines	56	11	45
By Salines only	65	9	56
Hospital Patients	10	10	0
Total	148	36	112

The treatment described as 'Bleeding and Stimulants,' consisted of venesection to the amount of 6 or 8 ounces ; the administration of salt and mustard emetics ; of hot salt water enemata ; hot air bath ; bottles of hot water and mustard cataplasms externally ; and of brandy, ammonia, and Cayenne pepper, in liberal and oft-repeated doses internally. No opium was given, as these were the earliest cases, and we were desirous to observe the disease unobscured by its effects. Thirteen were subjected to this treatment, five of whom were lost in periods of 5, 9, 10, 11, and 24 hours from admission ; and of the eight who recovered, three were moderately and five severely collapsed. Only one of these had the insensible purging, said to be a very fatal symptom ; and he appeared to derive most benefit from the mustard poultices, which were extensively applied for several hours.

The cases treated by 'Stimulants only,' were seen early. Two had severe premonitory symptoms ; one was moderately collapsed ; and one died in 72 hours of muco-enteritis.

Until reading the letter of Mr. Wakefield, published in the Medical Gazette, on the efficacy of the saline mode of practice, the principal dependence had been placed, in collapsed cases, upon cautious bloodletting, salt and mustard emetics, and mustard poultices. The hot bath, although always at command, had been found in many cases impracticable ; and the hot air bath decidedly injurious. Having prepared a mixture, every two ounces of which contained one of the powders used at Cold-Bath Fields, with a small quantity of brandy*, all future cases were treated (after the above preliminary measures had been practised) to the effect of this dose, repeated every half hour, until reaction was accomplished, when small doses of calomel and opium were given, every two hours, till the gums were slightly sore, and healthy secretions established ; after which the sulphate of quinine and mild aperients usually completed the cure. Fifty-six were thus treated, of whom eleven died, at the following periods after the commencement of the treatment :—

In six hours	1 (a relapse.)†
— twelve do.	5 (1 a relapse.)
— fifteen do.	1
— eighteen do.	2
— twenty-six do.	1
— four days	1 (a relapse.)

* Although in Dr. Stevens's practice stimulants were entirely prohibited, a small proportion of brandy was added to this mixture, because most of the patients had previously led irregular lives, and been long accustomed to smoking and dram-drinking.

† These relapses were all previously recovered from every appearance of danger, but are included as recoveries.

Of the recoveries, seven had severe premonitory symptoms ; fourteen were moderately, twenty-five severely collapsed ; fifteen had insensible serous purging ; and in several, the pulse at the wrist absent for two or three days. A few had smart inflammatory affections of the abdominal viscera, and one or two had partial dropsy during their recovery.

Under the treatment described as 'Salines only,' are included all those cases in which, during collapse, the following constituted the whole treatment :—A salt water emetic, followed by a dose of the saline mixture every quarter and half hour ; by an effervescing draught, with an excess of soda, every hour ; by the hourly administration of an enema, composed of starch, carbonate of soda, and common salt, and occasionally the Tr. Opii ; by saline beverage, consisting of barley-water, given *ad libitum*, to every pint of which two drachms of carbonate of soda had been added ; and by mustard poultices.

Of sixty-five cases so treated, nine were fatal, the period of decease being respectively,

In nine hours from admission	4
— twelve hours	2
— twenty-four do.	1
— thirty-six do.	2
	<hr/>
	9

In the case fatal in twenty-four hours, there was partial reaction and relapse ; and the patient who died in thirty-six hours was admitted early, and treated by saline injection into the veins.

Of the fifty-six recoveries, sixteen had premonitory symptoms ; ten were moderately, and thirty severely collapsed ; seventeen had insensible purging.

Under every variety of treatment, the vomiting and hiccup were occasionally obstinate during recovery, and a few had partial dropsy ; but it was only requisite to employ leeches in four cases ; venesection in one (a month after, for anasarca) ; and of the whole number of cases (148), only two were fatal after re-action : one of these was an hospital patient upwards of 70 years of age, who was treated by salines only, lived a week, and died of apoplexy ; and the other the case of enteritic inflammation already mentioned.

The hospital cases were such as would have been fatal under any acute disease, being patients far advanced in phthisis, fever, and in one or two the arteries were ossified from extreme old age, and death arose from congestion during re-action.—*London Medical Gazette*.

DEEP-SEATED ABSCESS OUTSIDE OF THE LUMBAR VERTEBRÆ.

BY SILAS JAMES, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THIS might be termed Lumbar Abscess were it not the custom to affix that name to chronic abscess implicating the psoas muscles, which points about the groin, thigh or perineum, and which is usually found in scro-

fulous constitutions ; whilst the kind of abscess now referred to is of an acute character, is seated between the spinous and transverse processes of the lumbar vertebræ, under the dense fascia and thick layers of muscles, and is usually caused by a violent strain of some muscle near its insertion. From the resistance existing to the pointing of the abscess and to the discharge of matter, such abscesses endanger the life of the patient. In such cases there is a violent symptomatic fever, preceded and accompanied by heavy pain in the loins, difficulty of lying on the back, and at last even on the sides. The part swells, presenting a broad surface slightly elevated, and although there is no pointing to it, nor any fluctuation of matter to be felt, yet the violence and duration of the symptomatic fever, and the local suffering, leave no doubt that matter is formed.

In such cases shall the surgeon plunge a scalpel through all the integuments in search of matter ? The objections to this course are—1. ‘The best modern surgeons make it a common maxim to open few acute abscesses.’ 2. The incision must be deep, consequently painful, and there is some uncertainty whether it will hit upon the most favorable place for giving exit to the matter. On the other hand, shall the surgeon wait till symptomatic fever destroys the patient, or till the matter is pressed into the interstices of the neighboring muscles ? The method adopted in the following case seems preferable to either of these.

J. G. complained of severe pain over the lumbar vertebræ, which was soon followed by severe symptomatic fever. He dated the complaint from a sprain in the back, occasioned by lifting. He was depleted freely both with the lancet and cathartics, took saline and antimonial medicines, and was blistered over the loins. The symptoms abated for a time, but returned with increased violence, accompanied with a swelling like that above described. His general health failing rapidly, Dr. Parsons, of Providence, was called. As there was no fluctuation of matter perceptible, fomentations and cataplasms were directed to the part till matter should be felt, and then the abscess directed to be opened. Dr. P.’s residence being twenty or thirty miles distant, he did not see the case again till the expiration of a week, when the patient’s life appeared in imminent danger from symptomatic fever. Still no matter could be felt in the swelling. It was now concluded to make a longitudinal incision into the centre of the swelling, deep enough to penetrate the fascia and some of the muscles, with the view of taking off the pressure that resisted the pointing of the abscess. The incision was made an inch and a half deep, and two inches long ; a tent was introduced, and the whole covered with cataplasms. The abscess immediately became prominent at the wound, and in two days burst through it, with a copious discharge of matter, which not only saved the patient’s life, but gave immediate relief to the symptomatic fever, and prepared the way for a speedy and entire recovery.

Another case has come within my knowledge, where a similar mode of treatment was followed by the same favorable result.

West Greenwich, R. I., November, 1832.

CLINICAL NOTES.

BY JONATHAN SIBLEY, M.D. OF UNION, MAINE.

[Communicated for the Boston Medical and Surgical Journal.]

Phlegmasia Dolens.

WHILE I was a student with Dr. Corrigan, of Concord, in the State of New Hampshire, I saw one severe case of phlegmasia dolens. To the affected limb were applied green leaves from the bushes, and I believe a solution of Sal. Ammonia. I visited the patient but once.

When I had been in practice in Maine twenty years, I had been present at the births of about eight hundred and fifty children. Besides these, I had seen, perhaps, a hundred other women in child-bed. But among all these, I had never seen a single case of this kind. Two cases then occurred to me—one succeeding the other after about six months. These women had both been made pregnant by the same man. The first was unmarried and very young; her labor was severe indeed. The scissors and crotchet were used, and the child, of course, was lost. In a week or ten days after delivery, the creature was attacked with this complaint, which appeared to partake of the nature both of rheumatism and dropsy. It was ushered in by cold chills, succeeded by heat, with pain and swelling in one leg. The pain appeared somewhat like that of rheumatism. The skin of the tumefied leg had a smooth and shining appearance, but retained its natural color.

Warm baths were first applied to the leg for a day or two. They did no good, but were thought to do harm. The other applications to the limb were olive oil and camphor; and after that, camphor, soap, and opium, dissolved in proof spirit. Much friction was used upon the limb for several weeks, but no bandages were applied. When the limb first affected had mended considerably, the other was attacked in the same way, but more severely than the first. The same remedies which had been applied to the first limb (except the baths), were applied to the second, and continued about the same length of time. This case was otherwise treated much on general principles—cathartics and anodynes, as occasion required. The patient was confined many weeks to her bed and to her room, and did not recover the perfect use of her limbs for many months; but at no time did the disease assume a formidable appearance, nor can I learn from my books that other remedies have succeeded better in other cases of this kind.

In the other case, the labor was severe and lasted long. I tarried with the woman fifty hours, and then succeeded with the forceps.

Two or three weeks after delivery, this patient was attacked in one leg, like the other case, but not so severely. Olive oil with camphor was applied, and friction was used upon the limb, as in the first case; but there was no occasion for remedies very long. The disease wore gradually away, and the patient recovered a much better state of health than she had before enjoyed.

I find by experience that puerperal complaints are more or less severe as they attack the patients sooner or latter after delivery.

It was expected at the commencement of this complaint, in each of

these cases, that the spiral bandage would be applied to the affected limbs, on the decline of the complaint, after the inflammation had subsided. But as the subjects were young, and the fibres seemed readily to assume their accustomed tone and the limbs to regain their natural shape and size in a reasonable time, bandages were neglected.

P. S. Since writing the above cases of phlegmasia dolens, I have seen another case of the same kind which succeeded an abortion. In this case the bandage was eminently useful after the inflammation had subsided.

Scarlatina Anginosa.

A child in a large family was seized with *Scarlatina Anginosa* in the fall of the year. There was nothing very noticeable in the case. The disease was mild, but the symptoms very clearly marked. No person took the disease from this child, nor was it possible for the patient to have taken it from any other person.

The next year, about the same period of the season, the same disease broke out again in the neighborhood where the first child was sick, and about ten or twelve children had the complaint in three or four families. All did well. In this last instance it did not appear that the different families communicated the disease to each other.

For several years before these cases of *scarlatina anginosa* occurred, I do not recollect to have heard of a single case of this complaint in this section of the country. Six or eight years have now passed away since their occurrence, and not another case of the kind has been heard of.

In ancient times, the barbarous people imputed the cause of epidemic or sporadic diseases to the anger of some particular divinity. A modern writer (Mr. Webster) has attempted to connect them with explosions of volcanoes, or the devastation of earthquakes! Another writer (Mr. Sullivan) thought the effluvia from our balsam trees (fir) had great influence in preserving the health of the inhabitants of this province. Sydenham referred the predisposing cause of epidemic diseases to some 'peculiarity in the constitution of the atmosphere.' We read in Belknap's History of New Hampshire that the physicians of Boston, in the year 1735, published their opinion of the *throat distemper* which prevailed at that time, and said it proceeded entirely from 'some occult quality of the air.' The mystery of contagion, I fear, will never be unveiled to the human mind. It *may be* some unknown, occult quality of the air. What vehicle but the air could carry the spotted fever through all the Northern States and a part of Canada in a single winter? And how could contagion subsist in a cold wintry wind?

Can *scarlatina anginosa* come by chance, or its seeds spring out of the ground? Who first had the smallpox? Who had the measles first? Has every succeeding case of these diseases been communicated by contagion or infection, from those who were sick to those who were well?

Arm and Funis Presentation.

I visited a woman in travail who had had several children. I found the funis descending, followed by an arm; os uteri fully dilated, and the waters discharging. I introduced my hand far into the uterus, and seized with two fingers a foot, which I cautiously extracted through the pelvis

and vagina, and secured it with a noose in a garter. I then sought for the other foot, which I found and brought down with the former. With cautious diligence I soon finished the operation ; but the child was dead ! there had been pressure upon the funis a little too long. Could I have gained a single minute in extracting this child after the feet were brought down, I presume it would have been born alive.

INFLUENCE OF OCCUPATION ON HEALTH.—NO. I.

BY E. G. DAVIS, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

IN making a division of the arts with reference to the modes in which they may affect, favorably or otherwise, the health of those who practise them, I shall follow the plan which seems best suited to convey a distinct notion of the prevalent circumstance in each, without limiting myself to any strict accuracy of scientific arrangement. In general, I shall consider first those trades, in the prosecution of which, no unhealthy substance is generated, but which may be injurious by their influence on the muscular system, or in other modes ; and secondly, those in which some noxious agent, either solid, liquid or gaseous, becomes the generating principle of disease. Each of these general directions will contain several classes, and under these I shall name the particular professions which belong to them.

Of the Occupations which involve no unhealthy Agent.

CLASS I.—*Those which require the employment of great muscular force, and bring the muscular system generally into exercise.* To this class may in the first place be referred the various descriptions of persons employed in the lifting or conveyance of burdens. Such are porters, stevedores, handcartmen and truckmen. This division includes perhaps the employments most favorable to the development of the muscular system, and indeed to the health generally, when the natural tendency is not interfered with by some accidental circumstance. This is peculiarly true of the latter class, who in addition to the advantages enjoyed by the others, of the universal exercise of the muscles, of constant exposure to the air, and of regularity in the hours of labor, possess also the important advantage of uniform and steady employment. The muscular system of this description of persons is singularly well developed, the body uniting force and activity to a remarkable degree. The exertions required by the business are such as to render it most appropriate for those who are naturally vigorous, and perhaps to deter others from undertaking it ; and this may be one cause of the generally robust appearance exhibited by this class. The occupation is not often interrupted by sickness ; and when circumstances render it necessary, may be pursued to a late period in life. I have known severe rheumatism to be induced by the exposure in a few individuals, but am not disposed to regard this as a frequent effect, when the system has not been predisposed to it by intemperance.

If we would characterise the physical evils to which these occupations

are subject, they are to be found less in the diseases which they induce, than in the accidents to which they expose those who practise them. Such are fractures of the limbs, dislocations, sprains, contusions from blows, and ruptures. These are the misfortunes by which even the most robust and vigorous are made to bear their testimony to the weakness of human nature.

Among the other occupations which bring the muscular system uniformly into exercise, may be mentioned those of house and shipwrights, coachmakers, pumpmakers, coopers, masons, bricklayers, &c. These may all be considered healthy occupations, as being exercised for the most part in the open air, and as affording general exercise to the limbs; and accordingly those who practise them in general give evidence of their possessing abundant corporeal vigor. Neither are there many material circumstances to distinguish them in this respect from one another. Masons who work on chimneys use less muscular force than others, and are less favorably situated in regard to position. They are also exposed to the dust of the lime, which exerts an unfavorable action on the eyes and skin. The mortar, however, is undoubtedly a healthy agent. I have seen it somewhere quoted, as a maxim among workmen, that bricklayers and plasterers never die. Coopers are subjected to some inconvenience on account of the stooping posture, which for the most part their business requires. This at first is apt to affect the head; but habit generally renders it a matter of indifference.

The occupation of the *smith* is somewhat peculiar, and therefore deserves a separate consideration. The trade is one peculiarly well fitted for the development of muscular power. The poets of ancient times could find no more appropriate employment for their giants than to forge the thunderbolts of Jove in the caves of *Ætna*. The employment of the smith is sufficiently varied to bring all the limbs into vigorous action, and no part suffers from disuse. The action of the arms is especially favored; and by the degree in which the circulation is thrown into these limbs, they become remarkably large, strong and muscular. The smith indeed does not work in so pure an atmosphere as those whose professions have just been considered. The eyes are exposed to the action of the smoke, and the body subjected to considerable variety of temperature. These, however, seldom produce inconvenience or disease; and those who possess good constitutions and maintain steady habits, are in little danger of being injured by this employment. It is, however, less well suited for those naturally feeble, who sometimes prove unequal to the exertion it requires. Smiths are not peculiarly liable to accidents. A circumstance of occasional occurrence is the separation of small spiculæ of iron, in a state of ignition, which striking on the eye, destroy a small portion of the investing membrane or outer coat, and thus form a cavity in which they remain imbedded. When carefully extracted they leave a small ulcer, which however readily heals.

CLASS II.—*Professions which require the use of certain muscles to the neglect of others, or which render necessary in their exercise some vicious or constrained posture.* This class includes a considerable number of artisans, to whom the description applies in different degrees. The worst evils of restraint are perhaps inflicted on young children. When

these are apprenticed to a trade at a very early age, and obliged to sit or stand in one position for many hours, the limbs are cramped, and the body is prevented from acquiring its due development. There is probably no portion of a dense population which suffers more from the injuries of trades than young children. In the manufacturing towns in England, the confinement of children to labor amounts to absolute cruelty, and has in some instances rendered necessary the interference of law to protect them from the inhumanity of parents and masters. In Leeds, children of eight, seven, and even six years of age are placed in manufactories, and labor from 12 to 14 hours a day, with intervals scarce sufficient to swallow their meals. That this system involves the ruin of the constitution, that it prevents, alike the development of mind and body, that it lays the foundation for disease and brings on premature decay, scarce need be added. Young children ought never, under any circumstances, to be confined to a trade. The plain dictate of nature is to allow them the free use of their limbs, that they may expand into proper proportions, and acquire their due growth. They require the open air and the unshackled use of their limbs, and the uneasiness they manifest when deprived of them is a sufficient proof that such was never the design of nature and must be injurious. Even among us, this principle is too often lost sight of, and too many children are sacrificed to the avarice of parents. Females, in a particular manner, suffer from this cause. It is not too much to say that girls under fourteen years of age, working in an unvarying posture for 12 hours out of the 24, can scarce by possibility retain their health and vigor.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, NOVEMBER 28, 1832.

MARCH OF THE CHOLERA.

WE were in hopes to be able to present our readers with a detailed account, derived from authentic sources, of the progress of this disease through the country during the last two months. As yet, however, we can give only gleanings from the papers of the day, the statements in which are in many instances extremely vague and unsatisfactory. It appears that in the latter part of September it had extended as far south as Edenton in North Carolina, and westward to St. Louis. At Cincinnati, thirty deaths occurred previous to the 10th of October. During the week ending the 17th, the victims to this disease were no fewer than 117. The usual mortality in that city is from 25 to 30, of all diseases. The succeeding week the mortality was still greater. The week ending Oct. 31st, the deaths from cholera were 104. It would appear from this, that, thus far, no city in this country has been more severely afflicted. At

Louisville, in Kentucky, up to Nov. 1, there had been 28 deaths. At St. Louis, during 14 days preceding the same date, there had been 140 deaths from cholera. Since that time it appears to have subsided. Two other places, mentioned as having been subjected to its ravages, are Natches (Mississippi), and Madison (Indiana). It has appeared at Folly Island near Charleston (S.C.), and, by the last accounts, ten deaths had occurred in one day. It appears now to have united with the yellow fever in the work of destruction at New Orleans. On the week ending the 27th October, the number of interments was 192; the numbers from cholera and yellow fever respectively were not ascertained. The deaths on the 31st were 133, and on the 1st of November 177. It is now on the decline.

There are some circumstances attending the outbreaking and spread of the disease at Folly Island, that are remarkable, inasmuch as they show in a strong light the communicability of the disease by contagion. A vessel bound from New York to New Orleans, and having the cholera on board, was wrecked on that island. The disease extended among those connected with the vessel, and, from them, to other inhabitants of the island. A guard was established by the Police of Charleston to prevent any intercourse between the sick and the inhabitants of that city. Notwithstanding this, several persons obtained access to the vessel, and returned to Charleston; and most of them, immediately after, sickened of the cholera and died. The habits of these persons were probably such as predisposed them to the disease; but no reasonable man will contend that there is a shadow of probability that they would have had it, at that time, had they remained quietly at home and not visited the island.

The Charleston police, after a due consideration of all the circumstances of the case, ordered the vessel and cargo to be wholly burnt, which order was thoroughly executed. It is to be hoped that their vigilance may be effectual in preventing the introduction of the malady; although hospitals have been established, and other measures adopted for the purpose of mitigating its terrors should it gain access to the city.

URTICARIA.

THIS disease is well known to be frequently induced by gastric disorder, and especially by the irritation of improper articles of diet. In some persons, the use of particular descriptions of fish will uniformly bring on an attack of the disease, which continues till the offending cause is removed. In this form the affection is sufficiently familiar; but the fact has not so often been noticed, how liable the malady is to become chronic by the use of improper food, or in connection with chronic dyspepsia. In this case its form is usually intermittent, occurring in paroxysms generally at night, varying in severity according to several circumstances, but particularly more severe in winter than in summer. In some few cases it has appeared to come on in the former season simply as a consequence

of interrupted transpiration by the skin, without any appreciable gastric derangement. Of the instances in which the disease has become chronic, one of the most remarkable we have met with is related by a Mr. Budgley, in the London Medical Gazette of the last year. A child about three years of age had been affected with the disease for 13 months, accompanied with irregularity of bowels, cough, a coated tongue, and other symptoms of deranged digestion. Various remedies had been proposed by successive medical attendants, but none had been attended with any advantage. The eruption made its appearance every night; not half an hour elapsing after the child was put in bed, before the skin of the back, arms, thighs and legs, were covered with the characteristic wheals, producing the most intense irritation. On inquiry, it was found that he took his meals with the family, and partook of whatever was provided for them. The use of vegetables was particularly encouraged, under an idea that they were salutary, and he was occasionally indulged in the use of wine. The case was treated by the substitution of farinaceous and animal food of the lightest kind, the interdiction of vinous liquids, and the employment of gentle aperients; under the use of which the child gradually recovered.

Where the cause of the malady is a single improper meal, it may usually be relieved by removing the offending substance. Sometimes, indeed, the articles taken will appear to have been digested, yet the disease will go on with great obstinacy, until some medicine is administered to alter the state of the secretions. In a case which happened to the writer, the offending substance appeared to have been eels taken at dinner; yet no particular oppression was perceived, and advice was not applied for till several days after, when the irritation of the disease became very troublesome, and was found not to yield to various remedies recommended by the patient's domestic counsellors. The eruption in this case was constant, but was found to be aggravated greatly at night. Under these circumstances an emetic was administered, followed by a cathartic, which proved entirely effectual the next day. The sympathy which exists between the digestive organs and the skin, and of which this disease is only one of many instances, is among the most extraordinary facts in the whole range of pathology; and would seem to hold out the promise that much more might be gained in the treatment of various forms of dyspepsia and hepatic disease, from endermic applications, than has yet been effected or imagined. We remember that some years since chronic hepatitis was treated in many instances with great success, by the extensive application to the cutaneous surface of diluted nitro-muriatic acid. The fashion, like other fashions in medicine, seems to have passed away; but it is a mode of treatment which has strong claims to a fair trial, and which might, we think, be revived with advantage in the management of many disorders in which the functions of the abdominal viscera are extensively impaired.

EYE AND EAR INFIRMARY.

DRs. Jeffries and Reynolds, of the Boston Eye and Ear Infirmary, have presented to the Managers of that Institution the following Report.

The general relations of their department in this Charity have increased in interest during the past year, while the detail of incident has been of the same exciting character as in former times. This Institution has now existed sufficiently long to strip it of any adventitious circumstance which might bring it into undue estimation at its commencement, and to settle it upon the basis of its absolute merits. The novelty of its operation might bring a large number of chronic cases, existing at its first formation, to swell the number of its applicants. This would give the Institution an appearance of utility which the event would not fully justify. But sufficient time has now elapsed to show its real position. The result has more than equaled the most sanguine expectations of its first projectors.

The Surgeons have had repeated evidence of an increased respect and favor for it as an eleemosynary establishment. It is presumed that in this respect it stands distinctly pre-eminent, when its comparative resources and expenditures are considered.

As a school for the practical knowledge of those diseases which come under its cognizance, it has become more known and more appreciated. The number of students which have attended its weekly ministrations has increased during the past year, all of whom have become much interested in this branch of their profession.

An increased interest in the affections of the eye has been remarked abroad. The same growing esteem may be evidently noticed in our country ; so that it may be confidently expected that the complaints of this noble organ will before long receive the attention which they so justly deserve.

By the books at the rooms, which record the places of residence of the applicants, it appears that individuals have come from sixty-four different places. The streams from this Charity have, therefore, flowed into the different sections of our State, and even into more distant parts. It would seem that this fact alone would present an irresistible claim to Legislative bounty ; especially when it is considered that if the facilities for receiving patients under immediate inspection were augmented, its direct influence would be felt by those who were strangers in the city. If a house or hospital was provided for the reception of patients, the number of applicants from the different towns of our State would be very greatly increased, and the amount of good bestowed would be vastly extended.

The number of cases at the rooms has not been quite so large as hitherto. This has probably arisen from the unnecessary apprehension which has existed in visiting the city at a time when it was threatened by the invasion of the Malignant Cholera, which happened to be at that season of the year when there has usually been the greatest influx of foreign cases. This circumstance should be borne in mind when estimating the proportion of applicants from abroad.

It will be remembered, also, that, in the early part of the year which is included in this report, an epidemic Influenza prevailed in this section of our country as well as elsewhere, which, although from its character it might be supposed to induce the affections which we treat, yet from its severity and universality manifestly prevented patients from leaving their

homes. It was noticed at the rooms, during that season of sickness, that applications, even of patients within the city, almost ceased.

The Surgeons cannot refrain from the expression of their regrets that the limited resources of the Institution have so greatly cramped their efforts. The necessity of declining to receive many from abroad who were unable to provide a home in the city, and of sending to another Charity those which distinctly belonged to this—and especially the fact that many curable cases have been compelled to leave before they had recovered, have greatly embarrassed the operations, as well as distressed the feelings of the Surgeons. But they are cheered by the hope that this restricted state will not be much longer permitted by a liberal community ; or if it is to be so for a time, they are still assured that they have laid the foundation of an edifice which must be reared at some future time.

The Surgeons are unwilling to close these preliminary remarks without noticing, with feelings of the most sincere gratitude, the bequest lately made to the funds of the institution by the legacy of Miss Belknap. Various circumstances tend to enhance the pleasure which they feel in the donation. Its influence is immediately felt in their department by being applied to the relief of the suffering applicants. It comes likewise from an individual who was personally known and most highly esteemed by them, and, having been preceded by a similar bequest from a lamented member of the same family, it stands as a pledge that the more closely the relations of the Institution are regarded, the more fully its merits are acknowledged. This act of generosity on the part of this truly benevolent lady, has doubly and inseparably united the memory of her family with the interests and regards of this Institution. During her life a broad stream of charity has flowed from her ample resources for the public good. She would not permit this benefit to end with her existence, but at her decease has poured the whole of these resources into the channel of public usefulness. The most prominent eleemosynary establishment of this city has shared most largely in her bounty, and owes her its lasting gratitude. The not less needed stream which has refreshed this Institution is as gratefully felt and as cheerfully acknowledged.

The Surgeons proceed to state the results of the past year.

The whole number of cases treated since the establishment of the Infirmary	-	-	-	-	-	-	5360
During the year past	-	-	-	-	-	-	660
The cases of affection of the Eye	-	-	-	-	-	-	540
Do. do. do. Ear	-	-	-	-	-	-	120
Of these there have been cured	-	-	-	-	-	-	512
Do. do. relieved	-	-	-	-	-	-	52
Do. do. not treated	-	-	-	-	-	-	40
Do. do. incurable	-	-	-	-	-	-	18
Do. do. now under treatment	-	-	-	-	-	-	38
The number of applicants from 64 towns out of the city							128

Test for Coffee, &c.—As that superficial but useful method of examining substances, termed *testing*, is in vegetables attended with difficulty, any attempt to simplify it must be useful : accordingly, I have made an analysis of Rye (*Secale cereale*) and Coffee (*Coffea arabica*), both raw and roasted. The former being very frequently used to adulterate the latter, I have

indicated a test for the detection of the fraud ; and as your Journal is, also, I believe, devoted partly to the diffusion of chemical science, I send it to you for publication.

	COFFEE.		RYE.	
	Raw.	Roasted.	Raw.	Roasted.
Lignin . .	50.5	49.0	20.6	18.0
Caffein . .	3.0	—	—	—
Tannin . .	—	2.0	—	—
Starch . .	—	—	49.4	—
Resin . .	1.5	6.0	5.0	7.0
Amidine* .	—	—	—	38.0
Gum . .	12.0	?	?	—
Albumen .	1.0	—	?	—
Gluten . .	—	—	4.0	2.0
Extractive matter .	26.0	30.0	18.0	20.0
Carbonized do. . .	—	8.0	—	11.0
Loss . .	6.0	5.0	3.0	4.0
	100	100	100	100

Now, as it is well known that iodine forms a blue iodide with amidine or starch, and as rye contains 38 per cent. of the former substance, when roasted, while it is absent from coffee, it follows that a mixture of roasted rye with roasted coffee is easy of detection, of which any one can convince himself by a simple experiment : for this purpose the alcoholic tincture of iodine is the most convenient form of the test.—*Medical Gazette*.

Enervation productive of Cholera.—Dr. Legros, of Paris, has published a note, in which he urges strongly the fact of *any* kind of nervous debility rendering the system peculiarly exposed to an attack of cholera. It is, however, to one source of exhaustion that he particularly alludes. The same observation has, indeed, been made by others ; but as it has not been sufficiently impressed upon the public, we think it right to bring it more pointedly under the notice of our readers. A case will render further explanation unnecessary. A young man of twenty-seven, when on the point of marriage, was seized with cholera : his illness was severe, and his convalescence slow ; however, having regained his health to a considerable extent, he would consent to delay his happiness no longer. He was married ; and, at four o'clock next morning, was attacked with cholera, having had no premonitory symptoms, and died in seven hours, notwithstanding the diligent employment of remedial means. Again, an old general left his house in good health, and was brought back in a dying state in two hours afterwards. What follows will read best in the original :—

‘ Interrogé sur ce qui avait précédé son indisposition, il nous apprit

* I have here limited this term to starch torrefied below 480 degrees.

qu'il était bien le matin, qu'il n'avait pas de dévoiement, que cependant depuis environ trois mois il suait plus souvent, plus abondamment et non plus de facilité que de coutume, puis, après beaucoup de tergiversations, il avoua qu'il était allé avec une femme, et que c'était pendant de vains efforts pour exercer le coït, qu'il avait été pris de tremblemens de sucurs froides et de vomissemens."

He died in the course of a few hours, having neither purging nor cramps; but with severe vomiting and mortal collapse. It is in the case of convalescents and elderly persons that the attack under the circumstances alluded to has been chiefly met with.

Effects of Darkness in producing Deformities.—A correspondent writes us the following curious fact. There is at present in Paris an artist of the Louvre, an eminent historical painter, of the name of Ducornet, who paints with his feet. He was born without arms, of poor parents, at Lille. There are also about the French metropolis a number of beggars, twelve or thirteen of them at least, all deformed in various ways, and all born at Lille, in certain dark caverns under the fortifications. The effect of these places, from their want of light producing malformed births, is so notorious, that the magistrates of Lille have issued strict orders to prohibit the poor from taking up their abode in them. It is added by our correspondent, that he had a conversation with Mr. Edwards on the subject, and that gentleman was greatly struck with the confirmation which the above circumstances afford to his views, stated in his work, *Sur l'influence des agens physiques sur la vie*. Mr. Edwards's experiments of detaining tadpoles in darkness, and thus causing them to grow into gigantic and monstrous tadpoles, instead of being transformed into frogs, are well known.—*London Medical Gazette*.

Science in Egypt.—The Pacha of Egypt has made great exertions to introduce the most important improvements in science generally, and in medicine in particular, into his dominions. For this purpose he some years ago induced M. Clot, a French surgeon, to settle in Egypt, and patronized the establishment of a Medical School at Abouzabel, to the proceedings of which we have repeatedly alluded. The Pacha has recently created his French *protégé* a Bey, so that he now figures under the somewhat ludicrous appellation of *Clot-Bey*; and his patron is about to despatch him with 12 young Egyptians to Paris, where they are to be educated in the most complete manner, and on their return to be appointed Professors of the different branches of knowledge they have acquired. Who knows but it may be destined that science shall again, as in times of old, find a resting place in Egypt?—*Id*.

Mortality from Cholera in Paris.—From the 26th of March (when cholera broke out in Paris) to August 31st, inclusive, the number of deaths reported were 17,978. April and July were the most fatal months: the former gives 12,723, and the latter 2577 deaths, the mortality of the other three months taken together being but 2678.

Cholera Intelligence.—The French government has distributed a number of medals to those among the inhabitants of Paris who were most conspicuous in their philanthropic exertions during the late epidemic.

Insomnolence cured by Sulphate of Quina.—M. Barbier, of the Hôtel Dieu, Amiens, relates the following case :—A man, aged 42, had cholera, from which he recovered ; all the functions were restored, except that his sleep was destroyed ; scarcely had he an hour's rest altogether in the course of each night ; laudanum and other soporifics were exhibited without effect. M. Barbier found, on examination, that every evening he had a nervous 'agitation,' which lasted all night, accompanied by some pain in the head and limbs. Looking to the *periodicity* of the affection, M. Barbier ordered six grains of sulphate of quina every night. It was given two nights ; he slept well ; it was then omitted ; he had no rest. The medicine was again renewed, and continued, with the effect of permanently procuring six or seven hours of sound sleep.—*Gaz. Med.*

Musk in Flooding.—In uterine hæmorrhage, particularly after labor which has been too precipitate, Dr. Hauff states that he has found musk, in doses of eight or ten grains every quarter of an hour, or every half hour, to be an excellent remedy.—*Medizinisches Conversations-Blatt.*

Whole number of deaths in Boston for the week ending Nov. 24, 36. Males, 22—Females, 14.
Of inflammation in the bowels, 1—delirium tremens, 1—consumption, 6—accidental, 1—hooping cough, 4—influenza, 1—old age, 3—marasmus, 1—lung fever, 5—intemperance, 1—cholera malignant, 5—infantile, 1—typhous fever, 2.

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Brunswick, October 8, 1832.

Oct. 31. eop5t.

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Oct. 24.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VII.] WEDNESDAY, DECEMBER 5, 1832. [NO. 17.

OBSERVATIONS ON CLUB-FEET.

M. DUPUYTREN lately exhibited at his clinical lecture an infant born in the Hôtel Dieu, having two strongly marked club-feet. The learned surgeon took the opportunity of making the observations which follow :

Club-foot is for the most part a congenital deformity, in which the foot is turned very much inwards, the sole being nearly perpendicular, and the external edge looking down, so that the individual rests upon it, or, when the deformity is very great, even on the outer ankle. At the same time, the cavity of the sole of the foot appears to be augmented. All these external phenomena have been well described by Scarpa and others. Scarpa and M. Cruveilheir have also occupied themselves with the interior appearances displayed by dissection, but none of them have sufficiently dwelt on the most important results of the club-foot—namely, the diminished nourishment and consequent atrophy of the limb.

Congenital club-foot is either limited to one or involves both members. In the former case, if the infant be examined very soon after its birth, the deformed foot is found to be rather smaller than the other, but the legs are of equal length. M. Dupuytren has had numerous opportunities of satisfying himself on this point. When both feet are affected, they are in general equal in point of development. This kind of premature atrophy, the unknown cause of which is probably connected with that of the deformity itself, produces as a consequence a secondary wasting, which extends to the entire limb, and the source of which may be better explained. In fact, the infant, from the day he begins to walk, constantly makes use of the sound limb chiefly, resting the weight of the body almost always upon it. The nutrition bears proportion to the exercise ; while the other limb, almost unemployed, wastes, in consequence of its inactivity.

Now this atrophy takes place in two different ways, which have hitherto been confounded, but which ought to be distinguished. 1. The limb wastes in length ; 2. It wastes in thickness. The wasting in breadth is but little manifested in the skeleton, though much in the muscles, and hence the weakness and thinness of the limb—a vexatious circumstance, it is true, but one which may be remedied by calling the parts into exercise. The atrophy as to length takes place both in the bones and in the muscles, but is developed in the skeleton, which is most important, and thence proceeds a shortening of the limb, which no remedy can

cure. The difference in length between the limbs increases in direct proportion to the age. Not perceptible at birth, it becomes obvious some years after ; and at the age of ten, M. Dupuytren has always found it well marked, and still more so at twenty, if no means of prevention have been adopted.

The shortening of the muscles and tendons, less considerable in general, becomes nevertheless irremediable after a certain time. Thus at twenty years the tendo-achillis has so lost its due length that when the foot has been brought to its natural direction the heel continues to be pulled upwards, so as to oblige the individual to have a very thick sole to the heel of his shoe, in order to be able to rest at all upon the part. It is therefore desirable to prevent as much as possible this shortening of the bones, because when it once takes place it is irremediable. According to these views, M. Dupuytren requested several practitioners who devote themselves especially to such cases, to begin the treatment immediately after birth : he sent four or five infants of very early age to an establishment for ' Orthopedy,' where they remained not more than five or six weeks. The deformity was completely corrected, so that the children learned to walk in the usual manner ; and the limb never having lost its length, performed its functions in the usual manner. I witnessed the results, said M. Dupuytren—I kept the individuals in view—and ascertained that the deformity did not return ; and I affirm that, by treating club-foot thus early, the wasting of the limb may be avoided with certainty.

It may be added, that the younger the infant is, the more readily will the foot yield to pressure. In a new-born babe the hand of the surgeon is sufficient to restore its natural form to the foot, and that without causing any pain. A few months more, however, increases the difficulty ; and when the patient has passed his tenth year, machinery is required to accomplish the end in view. After twenty, even mechanical contrivances fail to be of service. This depends upon three principal circumstances : 1. The suppleness of the ligaments and muscles, which continues to diminish as the age increases ; 2. The increase of the difficulty itself ; 3. The imperfect conformation in which the bones are developed, which last is decidedly the most powerful cause.

In conclusion it may be stated, that the treatment of club-foot, if undertaken at birth, is easy and simple : it is both completely preventive and curative.

ON THE USES OF CHLORIDES AND CHLORINE.

BY A. CHEVALLIER.

[Translated for Silliman's Journal by Professor GRISCOM.]

THE employment of chlorine and chlorides in the arts of salubrity, in therapeutics, &c. has been so multiplied of latter time, it is conceived that benefit will arise from a statement of their uses at the present period.

1. The use of chloride of lime in destroying the *odor of fresh paint*. For this purpose the chloride is found to be effectual. *Method*.—Provide shelves or boards about three feet long and two wide. Over them

spread some hay slightly moistened. Powder this hay with the chloride, and leave it a few days in the apartment newly painted, and carefully closed. The chlorine emanating from the chloride from the decomposing action of the carbonic acid of the atmosphere, will spread through the apartments and neutralize the odor of the paint.

If it be desirable also to remove the dampness of the apartment, a few pieces of chloride of calcium (or muriate of lime), placed in earthen dishes in the room, will answer the purpose.

It is wrong in such a case to use fresh lime along with the chloride, because the latter is effectual only in proportion as the chlorine is disengaged by the action of the carbonic acid and moisture of the air, and the presence of quick lime only serves to attract the same things, and therefore to retard the decomposition of the chloride.

The same purpose, as it regards odor, may be effected by the separation of chlorine gas, by placing an earthen cup, containing an ounce of oxide of manganese and three ounces of hydrochloric (muriatic) acid, on a hot brick, or over a furnace with a few live coals, or in a vessel of hot water, stirring the materials, and closing the apartment for twenty-four hours.

By heating in the same manner chloride of lime, dissolved in or mixed with water sharpened with sulphuric acid, the same purpose is effected.

2. The use of chloride in correcting the unhealthiness of *manufactories of cat-gut*, or other *fabrics from animal materials*.

Manufactories of this nature are apt to emit a highly disagreeable odor. The free use of chlorine, liberated in the way above indicated, will effectually correct the unhealthy emanations.

3. In disinfecting *the mud and filth of sewers*.

Agreeably to the experimental investigations of a committee chosen by the police, it appears that it would require 576 grammes of dry chloride of lime to disinfect one cubic foot of semi-fluid mud, weighing 10 kilogrammes; or 620 grammes of chloride, one foot of more solid filth weighing 10 kilogrammes 50 decagrammes.

The expense, therefore, deduced from these data, of disinfecting sewers which have become very foul, is considered to be too great, even at the reduced price of chloride of lime, and they therefore prefer the purification by ventilation through the agency of fire.

4. In disinfecting the air of rooms in *which silk worms are kept*.

The experiments of M. Bonafous, very carefully conducted, have proved that silk worms, exposed to the putrid exhalations of their litter and excrements, to the odor of dead worms, &c. will be injured or destroyed by these and other unwholesome effluvia, much sooner than if their apartments are seasoned by the corrective influence of chlorine. The gas, however, must be very gently and slowly liberated, or its effects will be too powerful. The method recommended is to place in a dish or vessel one part of chloride of lime and about thirty parts of water, or an ounce of chloride with a quart of water, with such a quantity of worms as will issue from an ounce of grains (eggs). Stir the materials, and when precipitated renew the water, and repeat the operation two or three times in twenty-four hours, as necessity requires. The chloride is to be changed only as it ceases to yield an odor.

In this operation it appears that the carbonic acid arising from the fermenting materials, unites with the lime, and sets the chlorine free, which by its avidity for hydrogen decomposes the miasms which it meets with.

This mode of fumigation does not remove the necessity of frequently renewing the air of the chambers, and of promoting its currents by fires.

5. In removing from *urine, and the vessels employed to receive it*, the disagreeable odor emitted from them.

It is well known that the odor of urine (which is at first aromatic, and often partakes of the smell of the food, especially after eating asparagus, cauliflowers, peas, &c.) becomes exceedingly repulsive and communicates its effects to the vessels containing it.

These odors are completely removed by a small portion of chlorine. Thus, half a gallon of urine which would not lose all its odor by being treated with four ounces of acetic acid, would yield it by the addition of six, eight, or at most ten drops of chlorine or chloride of lime.

If night tables and other utensils of a room which may have absorbed the odor of urine contained in chamber vessels be washed with a sponge dipped in a solution prepared by adding an ounce of chloride of lime to a gallon of water, they will be preserved from taint.

6. In destroying the *gases which blacken silver and bronze vessels, and varnish containing metallic oxides*. It has happened that in emptying privies and in other analogous operations, the effluvium has produced disagreeable effects on furniture and metallic surfaces. This may be completely prevented by suspending cloths soaked in a solution of chloride in the apartment, or placing them in the apertures through which the gas issues.

It has happened that in our two manufactories of porcelain ware, the white enamel of the vessels, by being incidentally exposed to a rupture of foul emanations of this nature before it was perfectly dry, has become very much discolored. A remedy has been found in opposing solutions of chlorine to the current of sulphuretted hydrogen, although the emanations have continued for weeks together.

7. In destroying *emanations that may occasion a plague*.

M. Felix D'Arcet, a member of the committee sent to Egypt in order to make experiments relative to the plague, furnished M. de Lasteyrie with the following details extracted from a letter from Tripoli of June 14, 1829.

'The most important point to be determined was whether the pestilential virus could resist the action of the chlorides.

'The Vice Consul of France obtained for us six garments of persons who died of the plague, all within the last two days. These garments were soiled with blood, sanies, and sweat. After the Consul had taken an account of their condition, I immersed them during sixteen hours in a solution of chloride of sodium, and after drying them, each of us put on a shirt next to our skin, and then the remains of the dress. The spots still existed on them, but much faded. We slept in these garments, and after wearing them eighteen hours, replaced them. It is a week since the experiment, and neither of us have experienced the least change. Our natural constitutions are also, it may be remarked, very different.'

It was proposed by M. Pariset that the effect of chlorine should be tried on other contagious diseases, and accordingly three experiments were made with it in relation to the measles. The chamber of a child, exposed to the measles, was disinfected, and his shirt was dipped in a solution of one ounce of liquid and concentrated chloride of lime, and three gallons of water. When dried it exhaled, very slightly, the odor of chlorine. He escaped the infection.

8. In the cure of epidemic diseases among dumb creatures.

In 1829 an epidemic malady broke out among fowls in the vicinity of Paris. The disease spread rapidly, manifesting itself by an inflammation of the head, tears in the eyes, blueness of the skin, and the issue of blood from the beak. The animals soon sunk under it. Bleeding and other means of restoration were employed without effect. The author being consulted, directed the chickens which were still unaffected to be placed in an enclosure by themselves, and those on which the disease had made some progress, in another enclosure. These places being then sprinkled with chloride of lime, the healthy fowls remained healthy, and the others were successively restored to health.

The same remedy was applied by M. Capliu, at Vaugirard. The fowls were preserved from the epidemic, and the sick were soon restored.

The solution employed on these occasions was prepared by adding two ounces of chloride of lime to half a gallon of water, carefully mixing, filtering the solution, preserving it in well-closed bottles, and using it as occasion required. The cause of this Epizootic was not ascertained, but it was perceived that the fowls which were confined in roosts exposed to the north were not attacked by it.

In a letter from M. Recluz, pharmacien at Vaugirard, it is stated that during an epidemic among the fowls at that place, it was found that those feeders who were careful to keep their fowl-yards clean, and who put clean straw in their roosts and stables, preserved their stock from the attack; whence it was inferred that the disease arose from the effluvia of putrefaction from the dung which was suffered to accumulate on the floors. In one instance fifteen fowls out of twenty-three had died of the infection, and three more were sick. The yard or roost was then well cleaned, washed with common water, and then sprinkled twice a day with a solution of one ounce of chloride in a pint of water. From that time not a fowl died. Similar results were obtained by other persons, one of whom stated that when he commenced the use of the chlorides, all his fowls were sick, and from the time of the first sprinkling with it they all recovered. M. Recluz regrets very much that he had not had recourse to the same remedy in a disease among cows at Vaugirard. A single dairy man lost nine of his cows in two months, without perceiving whence the sickness proceeded.

The chloride has also been successfully used in disinfecting the pens or casks in which rabbits are kept. The solution is applied with a brush, and the casks are drained before the rabbits are returned. Some which were very sick and refused to eat, were restored promptly by this disinfection.

9. In the treatment of tainted fish.

When tainted fish are treated with chlorine, they are said to exhale an

odor of bromine ; but the author states that on applying chloride of lime to a spoiled turbot, the odor was different both from that of chlorine and of bromine. The fish was washed, and on being cooked the smell disappeared, and it was eaten. Whence he infers that the odor from fish disinfected by chloride is not injurious to the health like that from putrid fish.

The baskets and other utensils used by fishermen may be deprived of the unpleasant odor which they contract, by the use of the chlorides.

10. *In the exhumation and removal of bodies which have been for some time buried.*

It is proposed that on occasions of this nature, when putrefaction has doubtless occurred, after opening the grave, to water the excavation and ground adjacent with a strong solution of chloride; to lay a cloth wet with the solution over the coffin; to place the coffin in a box on the bottom of which is a layer six inches thick, of a mixture of fifteen parts of charcoal in coarse powder, and one part of dry chloride of lime, and to surround the sides and top with the same mixture. With such a precaution the exhumation and removal to a great distance of a corpse long buried may be safely effected.—*Journal de Connaissances Usuelles.*

TWO CASES OF CHOLERA.

[Communicated for the Boston Medical and Surgical Journal.]

JOHN FALVEY, aged 7 years, son of Irish parents, living in Leman's yard on the north side of Fort Hill, on the morning of the 19th Sept. at 5 o'clock, was seized with severe purging. Had three evacuations, the appearance of which was not noticed ; vomiting then came on and continued with the purging. Some wine and water was given him. At 8 he was seen by a physician ; no vomiting or purging after this time. At 11 found in bed, with heated substances about him. Face pale ; features rather contracted ; lividity not great ; countenance anxious ; voice hoarse ; eyes sunken ; tongue and breath cold ; calls very urgently for water ; complains of distress at epigastrium, of what nature could not be determined. Surface colder than natural over whole extent, except abdominal region. Lower extremities more so than upper. No distinct spasms present. Jactitation very great, rendering it difficult to keep him in position favorable to warmth. Some mucous discharge was observed under him during visit ; when passed could not be ascertained. Was very soon annoyed by sinapisms to calves of legs, which when freed from these continued very sensible and appeared reddened, but the temperature not increased. Expressed uneasy feeling about legs, as if he had the sensation of cramp. Pulse sometimes imperceptible at wrists during two hours ; when felt, found beating about 180 ; very thready ; never became full. Decided change for the worse commenced at 1 o'clock. Death occurred at 5.

Possible causes.—His mother reports that yesterday morning his breakfast was not provided for him as usual, and that he ate several apples instead. At noon he again ate apples, but had some dinner. Supper, &c. as usual. Had two stools during day.

The following is a brief statement of the first case of cholera received into the Fort Hill Hospital, in Boston.

Name—Joanna Ryan. Age—50. Abode—Broad Street. Employment—unknown. Previous habits—irregular. Admitted September 13th. Discharged September 18th. Result—cured.

This woman was brought from a cellar in Broad Street which has been occasionally overflowed at high tides, but is reported in good order at present. She is but little known to the people with whom she has boarded; but is supposed to have lived irregularly, and to have drank some during the past week. She is also said to have had diarrhœa during the same period; but to what extent cannot be ascertained.

When seen at half past 5, P. M. was in state of collapse, pulse at wrists perfectly imperceptible. Skin cold, dry, particularly of hands, feet and knees. Voice very feeble; not otherwise remarkable. No vomiting or nausea present. Had one dejection before 12. The means employed at the outset were principally the application of dry heat, friction, and the exhibition of a laudanised potion every 15 minutes for 8 hours. At midnight had had no burning at epigastrium, and no distinct spasms. The urine is secreted in small quantities. At this time had slight subsultus tendinum, which was occasionally observable afterward. Before sunrise symptoms of reaction became very evident; the pulse rose and the skin acquired an increase of temperature. In the forenoon the pulse became fuller and harder, and some perspiration was present. This day the laudanum was stopped, and she had a cathartic which operated once. In the afternoon decided febrile action, with great drowsiness. When roused and questioned, expresses herself comfortable. Had an injection, which produced little effect. Afterward was ordered a cathartic, which produced profuse discharges, first spontaneous and then involuntary, checked only by several doses of laudanum. Restless in the evening, and seemed worse.

15th, 6 o'clock. Apparently under the influence of the laudanum; very heavy; appeared to have some delirium, but this point is not easily determined. Expresses herself free from pain.

During the forenoon her appearance improved. Towards evening expressed herself uneasy. Some increase of heat and pulse. In the evening was calm again.

16th. Comfortable through the day. From this time went on improving.

CLINICAL NOTES.

BY JONATHAN SIBLEY, M.D. OF UNION, MAINE.

[Communicated for the Boston Medical and Surgical Journal.]

Protrusion of the Brain.

NOVEMBER 1st, 1812, I visited a boy wounded in the head by the kick of a colt. I found the integuments divided, the skull fractured and depressed, and a small quantity of the brain had issued from the wound. As I had never had much experience in cases of this kind, and was not

furnished with suitable instruments to perform the necessary operation, I sent an express to Waldoborough, for Dr. Brown. When he arrived, twenty-four hours after the accident, the lad was to appearance perfectly well. During the preceding night he had eaten and slept as well as at any period of his life, and in the morning was quite playful. When he was asked if his head ached, he would say—‘a little.’ The parents and friends of the child were at this time very unwilling to have anything done for him, saying, ‘the boy will do well enough.’ However, they were finally prevailed on to substitute the opinion of others for their own, and Dr. B. was permitted to go on with the operation. The head being shaved and the teguments divided with the knife, a piece of the frontal bone over the left eye, about two inches in length, of an oval shape, was found broken from the skull, and one side of it much depressed. After perforating the cranium in two places with the trephine, the loosened piece of bone was removed. It was not the intention of the operator, at first, to remove entirely the fractured and depressed portion of the skull—only to elevate it to its natural position; presuming there might be bloodvessels in the dura mater sufficient to nourish and keep alive this piece of the cranium till it could be united by the ossifying matter to the original bone. But too great force being applied to the levator, the depressed piece burst through the orifice, the dura mater was ruptured, and the intention of the operator defeated. Two other small pieces of bone were removed at the same time. The dura mater being broken, the cortical part of the brain was much exposed to view, and a small part lost previous to and during the operation.

In this operation the temporal artery, with some others of a smaller size, was divided, and discharged a sufficient quantity of blood for the good of the patient. The divided integuments were brought over the wound and secured with stitches, the whole dressed with dry lint, and the patient put to bed in a dark room.

On the third day after the operation the inflammation and delirium deprived the friends of all hopes of life. On the fourth day the fever abated, and the wound was dressed, when it was discovered that the brain was protruding very largely through the wound in the dura mater into the opening of the skull. From this time the wound discharged freely, and the boy mended daily. In about ten days after the operation the brain had protruded through the skull about an inch, entirely filling up the space in the cranium from which the fractured pieces of bone had been taken. This tumor cast off purulent matter freely from its surface, about four weeks, when it was reduced to one half its largest size. Pressure was then applied, which entirely removed it in a few days without any injury to the patient. The boy, in two months after the operation, was as hearty and sprightly as he ever was, and suffered no inconvenience from the injury, except on the tender part of the head, which was deprived of bone.

Strangulated Hernia.

A young man who had been troubled with hernia from his youth applied to me for assistance. I purchased for him one of Stone’s patent trusses, which he wore a few years, when it was accidentally broken and

thrown aside as useless. So much of the contents of the abdomen as had been kept in their place by the truss, would occasionally descend into the scrotum, and were returned again through the abdominal ring by the man himself. About a year from the time the truss was thrown aside, a portion of intestine descended into the scrotum while the man was driving a team in the field, which could not be returned again in the usual way. Strangulation immediately ensued, and I was called to visit the patient. I found the man in great pain and the tumor very tender to the touch, notwithstanding it had been formed only three or four hours. After spending about an hour in unavailing attempts at reduction, I informed the patient and friends as well as I could of the nature of the case and danger attending it, and advised them to send for Dr. Brown, who was considered the best operator in the country at that time. While we were all impatiently waiting for his arrival, I made use of various means for reduction, not all of which I suspect were best calculated to accomplish so desirable an object. I had not at that time heard of Gimbernet, the Spanish surgeon, nor had I any idea of his method of practice in cases of this kind; we all labored, as well as we could, in the old way. The man was suspended by the feet, and after that put into warm water; but these means did no good. A cathartic was worse than useless. Clysters of tobacco evacuated the rectum, and gave only temporary relief.

Dr. Brown arrived twenty-four hours after the descent of the intestine into the scrotum—made a slight examination, and gave his opinion that it was expedient to operate immediately.

Preparation being made for the operation, a table was placed in the middle of the room, to which the patient walked, and laid himself thereon. The parts being shaved, an incision was made nearly the whole length of the tumor, and the hernial sac laid open at the lower part. A small quantity of water appeared. The hernial sac was then laid open the whole length of the incision, and the abdominal ring divided with the probe-pointed bistoury. The intestine—as highly inflamed, perhaps, as it was possible for animal fibres to be—Dr. Brown held up to my view upon his finger, and said, ‘what shall I do?’ I instantly replied, ‘let it go,’ and he immediately returned the intestine into the abdomen. The cathartic which had been previously given soon operated, and the man with a cheerful countenance was carried to bed.

When the operation was finished, and all was calm and still, then was the time for us to reflect upon the scene which had passed before us, and to review our conduct. We feared we had been too precipitate in returning the inflamed intestine into the abdomen; for should mortification take place upon it, the contents of the alimentary canal would all be discharged into the abdomen, and the patient be lost—whereas, had we secured the intestine in the wound, mortification might have taken place, and the patient survive and continue to live with an artificial opening for the discharge of the excrements. But our fears were never verified; the wound soon healed, and the man was well, but not sound. He had occasion for a truss again.

INFLUENCE OF OCCUPATION ON HEALTH.—NO. II.

[Communicated for the Boston Medical and Surgical Journal.]

I SHALL now consider some of the trades which belong to the present class, and the first I shall mention is that of

SHOEMAKERS. The evils arising from vicious position and partial employment of muscles are remarkably exemplified in these individuals. They sit very low, with the body much bent and the head stooping forward, for the convenience of their work. In this way the liver and other organs within the great cavity are compressed, and the free circulation of the blood is prevented. They are also obliged, in using the last, to press it against the cartilaginous substance which forms the lower part of the breast bone, and corresponds in position with the pit of the stomach. By this pressure the xiphoid cartilage is forced inward, and a hollow is produced, sensible both to the touch and the eye. In this way injury is inflicted both on the stomach and the chest, shown in the latter by cough and shortness of breath, and in the former by loss of appetite and rejection of food. Those employed in this trade for a large number of hours daily, without intervening exercise in the open air, can hardly fail to become unhealthy. It happens, too, unfortunately, that when recreation is resorted to, and a day is borrowed from the week for this purpose, as is the custom with many, it is passed in pernicious indulgence, which instead of recruiting the system, only renders it more susceptible to the injurious effects of the succeeding employment. The rooms in which shoemakers work are often hot and ill ventilated, a circumstance which aggravates the evils of confinement. The obvious means of palliating the bad effects of this trade, is to take daily exercise in the open air, in the intervals of labor. In practice, however, this proves extremely difficult; and many find it a less effort to make an occasional exchange of the occupation for several months at a time, for some one which may be pursued in the open air.

I have observed in some manufactories a very simple contrivance, by which the work is secured to the surface of a block, four or five feet in height, in such a manner as to be conveniently commanded by the workman while standing, so that the evils arising from position and from pressure are at once avoided. I believe this mode is principally adopted by those who have found their health impaired in the ordinary mode of conducting the process. In those portions of the work to which it is applicable, its more general adoption would, I think, be attended with benefit, and serve to diminish the inconveniences and evils of the trade.

2. The evil arising from position in the occupation of the **TAILOR** is even greater than in that which has just been described. Sitting cross-legged on his bench, a posture which the nature of the work renders indispensable, he plies his needle for hour after hour without respite, while the circulation in the lower limbs is seriously interfered with, thus depriving them of their growth and proper development, if not inflicting more serious injury. The blood thus impeded in its course, is thrown

unduly upon the heart, and causes embarrassment of the functions of that organ. The exercise which the employment furnishes is insufficient as well as partial ; and in large establishments the work is pursued in crowded, badly ventilated and heated apartments. From all these causes, the business of a working tailor becomes, after a certain time, more or less prejudicial. The appetite is impaired, the thirst unduly increased, the powers of digestion diminished, the limbs enfeebled. These effects are less obvious with us, partly because the causes do not exist to the same degree, and partly because a sufficiently extensive field of observation is seldom presented at one view. But in large establishments abroad, the injurious influence thus exerted is exceedingly manifest. In the extensive establishment of Schultz & Co. of London, in which more than 300 workmen are employed, it is stated that only six of this number are above 60 years of age, fourteen above 50, and the greater part of the remainder about 40. Of the six above mentioned, three have curvature of the spine. Their most common affections are indigestion, disorder of the bowels, and dull headache with giddiness, especially during the summer. They attribute their complaints to two causes ; one, the constrained position which the occupation requires ; the other, the heat of the shop. At one examination of this point, the temperature of the room was 98 deg., with that of the open air 76 deg. At another, the internal temperature was 108 deg. while that abroad was 84 deg. Tailors are the most intemperate men in London. A large number die annually of consumption.

Such is a picture of the state of this class in a crowded city. We may hope and believe that our own exhibits nothing to compare with it. The evils, however, if not to the same extent, are the same in kind, and deserve the consideration of those who employ a number of hands in this business. As respects the heat of the working rooms, it is said that the preparation of the heated irons employed in pressing requires the presence of fire at all seasons, and that this circumstance necessarily contributes to the elevation of the temperature. But it seems natural to suppose, that except during the hottest weather, the effect of this source of caloric might be neutralized by improved arrangements, and especially by proper ventilation. The subject at least is deserving of inquiry. With respect to the spinal curvature mentioned above, although the tendency of the employment certainly is to produce this deformity, yet the fact is as certain as it is remarkable, that where the resolution and vigor are present to prevent the tailor from yielding to the inclination to stoop, the very exertion required to resist it strengthens the muscles of the back, and he becomes remarkably erect. The circumstance of corpulency, which might be supposed to favor this tendency, has often a contrary effect. The weight on one side induces the exertion of a counteracting force on the other ; much as a bag of sand placed upon the head, by its tendency to carry it down, forms a constant inducement to resistance, and thus eminently contributes to maintain it in its proper position.

As respects the means of preventing the evils incident to this employment, I should, in suggesting them, scarce do more than repeat the remarks made upon the same subject in considering the last mentioned trade. A French writer, in pointing out the best employment for tailors

in their leisure hours, strongly urges the advantages of running, leaping, swimming, and particularly dancing, which last may be accounted the *sovereign'st* thing of all. In fact, daily and regular exercise, and the avoiding of excess and imprudent exposure, include nearly all the advice which can be given, and unfortunately far more than is likely to be followed. Attention to these circumstances, however, in those possessed originally of sound constitutions, will work wonders. I have seen an individual who has followed up this occupation for fifty-five years, and who, at the age of 70, is still able to wield the needle and the shears, in the enjoyment of almost if not altogether perfect health. Without gaining entire exemption from the evils of his employment, he has found them temporary only ; and his constitution gradually suiting itself to the circumstances in which he was placed, he has suffered scarcely any inconvenience from the trade for many years.

CAPSICUM.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—If you could induce Professor Tully, or any one of your correspondents who is familiar with the article, to furnish you with a dissertation upon *capsicum*, you might probably be of more service to the profession than by giving to the public the same quantity of matter upon almost any other subject. It has long been pretty extensively and very advantageously employed as a gargle, in angina maligna, and other affections of the throat. It is also considerably used in some complaints of the stomach, and in the latter stages of most typhoid diseases. I have, however, considered it as more valuable in *passive hemorrhage* than perhaps any single article of the *materia medica*. In this case, it may be employed in doses of three to five grains in pill, and may be repeated every ten or fifteen minutes, to the third or fourth time, in almost any instance of a sudden profuse loss of blood, whether it is from the lungs, uterus, nose, stomach, or rectum. It generally answers when given alone, but its effect is usually more certain when each dose is combined with one or two grains of sugar of lead, and half a grain or a grain of opium.

Notwithstanding *capsicum* is so very important in hemorrhage, I do not know that its stiptic property is mentioned in the common treatises upon *materia medica* ; and I suspect that the number of practitioners who employ it in this way, is very limited.

Should this hint serve to call forth some abler pen to furnish a dissertation upon the subject, my end will be answered. SENEX.

¶ *Digitalis* is another article, the uses of which in hemorrhage and other diseases we should be pleased to see set forth by some experienced correspondent.—EDITOR.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, DECEMBER 5, 1832.

THE CHOLERA AT SOUTH BOSTON.

THIS disease has recently broken out in the House of Industry, or Alms House, at South Boston, and is still finding there daily victims. The following note from the physician of that establishment, to the Editor, will afford the best information respecting the extent and fatality of the disease.

House of Industry, December 2, 1832.

DEAR SIR,—In compliance with your request I send you a brief abstract of the cases of malignant cholera which have occurred in this Institution within the last fortnight.

There have been forty-one cases, of which number twenty-six have died—namely, twelve aged persons, seven insane, and seven children. Of the sixteen remaining cases, eight have recovered from collapse, and are now suffering from consecutive fever; six of the eight will, I think, recover. Very many of the inmates have been troubled with vomiting and purging, and it is my firm belief that a large number of cases have been prevented by prompt attention to the premonitory symptoms.

My unremitting attendance here prevents me from giving you any further details at this time; but it is my intention to give you, very shortly, a statement of the manner of attack, the phenomena of the disease, the different kinds of treatment I have adopted, the peculiarities which I have noticed, and the appearances presented in post-mortem examinations.

Very truly, your friend,

JOHN C. HOWARD.

HEALTH OF NEW ORLEANS.

WE are equally surprised and gratified at the very sudden cessation of the cholera and yellow fever at New Orleans. The occurrence of cold weather seemed to be the cause of this most happy change, and it is the less explicable since the former disease, as we have before remarked, has not shown in Europe such immediate and entire submission to the season. We expect, before many weeks, to lay before the reader a somewhat detailed account of the mode in which the malady commenced, prevailed, and terminated in that city.

THE JOURNAL OF HEALTH.

THIS Journal, which has hitherto been in an extraordinary degree popular throughout the Union, has recently fallen into the hands of another publisher, and the word Recreation is added to its title. This indicates

a judicious change in the character of the work. The subjects strictly hygienic, that can be made interesting to the general reader, are limited. These subjects have been taken up and discussed by a succession of Journals of *Popular Medicine*; but all of them, in this country and in England, have had a short life and a merry one. By the addition now made to the title of the Philadelphia work, a wide field and an agreeable one is opened to the editors, just as that, they have so long and ably and successfully occupied, was becoming barren. The publication is also made once, instead of twice, in each month; and the last numbers seem to be well filled with a variety of interesting and useful pieces, both original and extracted.

AMERICAN BOARDS OF HEALTH.

UNDER the above title we find the following remarks in the London Medical Gazette:—

It is curious to observe how frequently republican forms of government, with freedom as their idol, contrive, in some way or other, to display the most arbitrary propensities. Among us there has been, on several occasions, an outcry against the attempts of the government to carry into effect the measures requisite for acquiring accurate information as to the extent of the present epidemic, and for staying its progress, although the plans actually adopted have never been more than the necessities of the case obviously pointed out. Our friends in America proceed in a much more summary manner; the most rigid returns are enforced, stating the name and residence of every patient, under heavy penalties; and the power vested in the Boards of Health may be judged of from the resolutions of one of them, which now lies before us, in which any person who has been in a house which a cholera patient has inhabited, and who shall presume to enter the town of Hudson, shall be fined 100 dollars and imprisoned for three months. A pretty strong measure this—we guess. The opinion that the disease is contagious seems to be general, if not universal, in America.

Case of 'Tremblement Mercuriel,' or Mercurial Affection from the process of Gilding, successfully treated by the Administration of Conium.—Richard Brown, aged 35, of spare habit, but good constitution, was admitted into St. Bartholomew's Hospital, under the care of Mr. Earle, on the 1st of September last. He had been from his youth employed in gilding; from which occupation, however, he had never experienced any disorder or ill effects until a fortnight prior to his admission into the hospital, when, after a day of unusually laborious work, he was suddenly seized with cramps in the fingers; which were shortly followed by a shaking and tremulous motion of both upper extremities. They were slight at first, but gradually increased, so as to become very distressing. This agitation of the muscles continued even during sleep, and was accompanied with a gnawing pain, as he expressed it. With the exception of slight pain and heat about the head, his general health was not much affected.

During the last four days, mild purgatives were given him, and leeches, with cold evaporating lotions, applied to the head.

September 6th.—The symptoms have become still more general, the lower extremities having been affected the previous evening, so that, in fact, the whole body appeared in constant motion. The bowels rather costive, but entirely free from pain. Towards the latter part of the day, the tremulous motion of the muscles of the right arm subsided, but the limb remained almost paralysed. Ordered *Ol. Ricini*, 3 ss. ; *Ext. Conii*, gr. v. *fiat pil. j. ter die sumenda*.

From the day on which he commenced the conium, the patient experienced a gradual remission of his symptoms, and at the expiration of about ten days they had almost entirely subsided. At this time, '*pilulæ panis*' were substituted for the conium, when the patient immediately fell into the same state ; the symptoms recurring in perhaps a still more aggravated degree. The conium was again administered, and with its former good effect. He has just left the hospital, apparently quite well. He was, however, recommended to continue the use of the conium for a week or two longer.

Effect of Disease on Memory.—Failure of memory takes place in a variety of ways. It is sometimes general, and extends to every subject ; but it is frequently far more manifest on some subjects than on others. Salmuth mentions a case in which the affected person had forgotten to pronounce words, but could nevertheless write them. Mr. J. Hunter was suddenly attacked with a singular affection of this kind, in December 1789, when on a visit at the house of a friend in town. 'He did not know in what part of the house he was, not even the name of the street when told it, nor where his own house was : he had not a conception of anything existing beyond the room he was in, and yet was perfectly conscious of the loss of memory. He was sensible of impressions of all kinds from the senses, and therefore looked out of the window, although rather dark, to see if he could be made sensible of the situation of the house. This loss of memory gradually went off, and in less than half an hour it was perfectly recovered.' This might possibly be connected with a gouty habit to which Mr. Hunter was subject, though not at this time laboring under a paroxysm. The late Bishop of Landaff, Dr. Watson, gives a singular case of partial amnesia in his father, the result of an apoplectic attack. 'I have heard him ask twenty times a-day,' says Dr. Watson, "'What is the name of the lad that is at college ?'" (my elder brother) ; and yet he was able to repeat, without a blunder, hundreds of lines out of classic authors.' And hence, there is no reason for discrediting the story of a German statesman, a Mr. Von B., related in the seventh volume of the *Psychological Magazine*, who having called at a gentleman's house, the servants of which did not know him, was under the necessity of giving in his name ; but unfortunately at that moment he had forgotten it, and excited no small laughter by turning round to a friend who accompanied him, and saying with great earnestness, 'Pray tell me who I am, for I cannot recollect.'

From severe suffering of the head in many fevers, a great inroad is frequently made upon the memory, and it is long before the convalescent can rightly put together all the ideas of his past life. Such was one of the effects of the plague at Athens, as we learn from Thucydides ; 'and many, on recovery, still experienced such an extraordinary oblivion of all things, that they knew neither themselves nor their friends.' A few years ago, a man with a brain fever was taken into St. Thomas's Hospital,

who, as he grew better, spoke to his attendants, but in a language they did not understand. A Welsh milk-woman going by accident into the ward, heard him, answered him and conversed with him. It was then found that the patient was by birth a Welshman, but had left his native land in his youth, forgotten his native dialect, and used English for the last thirty years. Yet, in consequence of this fever, he had now forgotten the English tongue, and suddenly recovered the Welsh.

Boerhaave, however, gives a still more extraordinary instance of oblivion in the case of a Spanish tragic author, who had composed many excellent pieces, but so completely lost his memory in consequence of an acute fever, that he forgot not only the languages he had formerly learnt, but even the alphabet; and was hence under the necessity of beginning to read again. His own poems and compositions were shown to him, but he could not be persuaded that they were his productions. Afterwards, however, he began once more to compose verses; which had so striking a resemblance to his former writings, that he at length became convinced of his being the author of them.

The Ornithorhyncus Paradoxus.—The following interesting fact in natural history was communicated by Dr. Weatherhead, to the committee of science of the Zoological Society, at their last meeting.

For the last five-and-twenty years naturalists in Europe have been striving to obtain the carcass of the impregnated female *Ornithorhyncus Paradoxus*, for the purpose of ascertaining its mode of gestation, but without success; for it is by dissection alone that the hitherto doubtful and disputed point concerning the anomalous and paradoxical manner of bringing forth and rearing its young can be satisfactorily demonstrated. This long-sought-for desideratum is at length attained. Through the kindness of his friend, Lieut. the honorable Lauderdale Maule, of the 39th regiment, Dr. Weatherhead has had the bodies of several *ornithorhynchi* transmitted to him from New Holland, in one of which the ova were preserved; establishing, along with other curious circumstances ascertained, the extraordinary fact, that this animal, which combines the bird and quadruped together in its outward form, lays eggs and hatches them like the one, and rears and suckles them like the other.—*Proc. Zool. Soc.*

Sir W. Russell and Sir D. Barry.—These gentlemen have recently received, through Prince Lieven, diplomas constituting them honorary members of the Imperial Academy of Medicine and Surgery of St. Petersburg. His Majesty the Emperor had already conferred upon them the collar of the order of St. Anne of Russia.

The Publishers of the Medical Journal would respectfully give notice to those subscribers who are indebted to them, that remittances will be particularly acceptable during the present month.

Whole number of deaths in Boston for the week ending Dec. 1, 43. Males, 19—Females, 24.

Of consumption, 6—dropsy on the chest, 3—inflammation of the lungs, 1—dysentery, 1—intemperance, 1—brain fever, 1—cholera malignant, 19*—infantile, 1—typhous fever, 1—old age, 1—croup, 2—inflammation in the bowels, 1—scarlet fever, 1—throat distemper, 1—fits, 1.

* In the House of Industry, at South Boston.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VII.] WEDNESDAY, DECEMBER 12, 1832. [NO. 18.

CASE OF LIGATURE OF COMMON CAROTID.

Ligature of Common Carotid, for attempted Suicide. By W. E. HORNER, M.D., Prof. of Anatomy in the University of Pennsylvania.

ON Monday, June 18th, 1832, a criminal, named Washington Taylor, æt. 34, was brought up before Judge King, to receive a sentence of six years confinement in the State penitentiary, for counterfeiting. Upon the sentence being passed, he immediately drew a knife and plunged it into his throat, a little below the angle of the lower jaw, on the right side ; he then withdrew the knife, and not satisfied with the effects of it, he plunged it again into the same region of his throat, half an inch from the other wound. I was passing the court-house at the moment of this proceeding, and from that circumstance was accidentally called in by one of the persons in pursuit of medical aid.

I found the criminal in the court-room, sitting upright ; a handkerchief soaked with blood was held by the persons present, over the wounds ; it restrained somewhat the bleeding, but very imperfectly. On its removal the blood gushed out in a large stream, the size of a little finger, (but not per saltum,) from the wounds, and of an arterial color. Having got this glimpse of the parts, I directed an assistant to apply the end of his thumb to them, and to press firmly against the front of the cervical vertebræ, while I went home, a distance of two and a half squares, for my instruments. On my way I met accidentally Dr. Emerson, and engaged his assistance.

On my return, I saw that the pressure applied had been systematic enough to restrain almost wholly the hæmorrhage. I then had the patient inclined half-recumbently on a settee, and changed the pressure to the trunk of the carotid at the lower part of the neck, which arrested the hæmorrhage very insufficiently ; I then dilated the wounds by converting the two into one. I spent some minutes in attempting to take up the divided vessels ; but the incessant column of blood pouring from them, concealed them so completely, that I found it impracticable to succeed. By running my finger into the wound, I felt that the knife had passed in the direction of the carotid arteries and internal jugular vein, between the vertebræ and pharynx ; and it was evident, from the copiousness of the hæmorrhage and the redness of the blood, that a large artery was wounded, either one of the carotids or one or more of their large

primary branches. The extreme danger of the individual left no further time for attempts in this region ; I therefore determined to take up the primitive carotid, which I did by extending the wound downwards for two inches, and passing a ligature around the vessel on a level with the thyroid cartilage. The operation was very much embarrassed by the parts being continually overflowed with blood, so that I could scarcely get a glimpse of them for a moment at a time.

The patient resisted with all his might these proceedings, and protested with a loud voice against them, declaring incessantly his desire for the wound he had inflicted to take effect. Immediately on the ligature being drawn around the artery, the bleeding stopped completely, he became relaxed, and seemingly fainty ; and his voice, which had been previously coarse, fell to a whisper, and could not be raised above it. The respiration, however, was not disturbed. I apprehended that the par vagum had been enclosed in the ligature, and felt half disposed to put on another a little below, and remove the first. The danger from the hæmorrhage was so pressing, that not having an aneurismal needle at hand, I had used a common one with the point foremost and passed from within outwardly. The hurry of this operation, and the obscurity of the parts from blood, made it impossible, therefore, to use the caution requisite to avoid the par vagum ; and the sudden failure of voice led me to suspect this accident : but after watching the respiration for some time, it appeared to proceed so tranquilly, that I determined to let the ligature remain, and especially as it answered so completely the purpose of arresting the bleeding. The operation being finished, and the parts bound up, the patient was sent immediately to the penitentiary in a carriage, and put under the professional charge of Dr. Bache.

July 12th.—The patient is nearly well, his respiration is good, the voice is still in a whisper, though improving, and regaining its former tones ; I think, therefore, that the cause of the feebleness of the latter must have arisen from turning off the supply of blood to the larynx through the upper thyroid artery. The ligature has come away.

In our common dissections of the carotid, we find it in front of and against the muscles of the transverse processes. In this case I was surprised to find it much in advance of those parts. Is this common, and is it produced by the muscles of the throat drawing it off ?—*American Journal of Medical Sciences.*

RETAINED PLACENTA.

Case of Retained Placenta. By F. Y. PORCHER, M.D., of Charleston, South Carolina.

Mrs. —, the subject of the following communication, was about thirty-three years of age, tall, and of spare habit of body, had always enjoyed good health—been married about two years—been twice pregnant, and had an abortion each time in the third month : in the third pregnancy I was consulted occasionally for slight indispositions, and requested to attend on her in her approaching confinement. In the morn-

ing of the 14th of February, 1831, she fancied that her labor had commenced, and I was requested to see her. On my arrival, I found that there had been some discharge of water, but not the slightest pain; she was directed to keep her bed, and inform me if any pain should come on during the day. In the evening some pain was felt, which continued through the night, though slight, and at long intervals.

15th. Pain much increased, and the os uteri beginning to dilate—in a few hours sufficiently open to ascertain that it was a breech presentation. At 4 o'clock that afternoon she was delivered of a full-sized child. On applying the hand to the lower part of the abdomen, the uterus was found low down and well contracted. After waiting some time, an examination was made, and an hour-glass contraction of the uterus was found to exist. The spasmodic action was of so firm a nature, as to render the introduction of but one finger exceedingly difficult, and could only be accomplished by persevering efforts: on overcoming the spasm so far as to reach the fundus of the uterus, the placenta was found entirely adherent, and so intimately connected that its edge could not be traced, and no part detached by the finger. During this examination, the tonic contraction of the uterus maintained a constant and powerful action on the hand, such as none but those who have experienced the effect of uterine contraction can estimate.

After making fruitless efforts to extract the placenta, it was deemed advisable to desist for the time. Reflecting on the case, it appeared to have some peculiarities, and to present difficulties not easily overcome by the practitioner, or managed with safety to the patient. On passing the finger, for instance, along the cord to its insertion into the placenta, the ordinary spongy and thick mass appeared to be wanting, and to be inserted directly into the uterus; on extending the fingers around, it appeared doubtful when they passed over the margin of the placenta; the uterine contractions were exceedingly strong, but did not in the least effect its detachment.

About 10 o'clock at night, six hours after delivery, I requested my friend, Dr. Joseph Glover, to see her with me. The nature of the case was stated, and he was requested to make an examination himself. He found the tonic contraction strong, and the placenta still adherent. The most judicious efforts on his part could not effect the slightest detachment, and it was determined to desist for the night, and prescribe an anodyne.

16th. On visiting the patient this morning, found her comfortable; had rested well during the night, and continued free from pain; the state of uterine contraction in no respect altered; the placenta could be more distinctly felt at its centre. Particular engagements obliging Dr. Glover to leave the city, Dr. Philip G. Prioleau was requested to see the patient with me. His efforts to extract the placenta were conducted with his usual skill and address, but with no better success. These repeated examinations and attempts at extracting the placenta, had been conducted with as much gentleness as possible, but at the same time with resolution and perseverance; nothing, however, had been effected. It became necessary at this time to pause, and reflect on the peculiar nature of the case; the consequences which must result from the violence used in order

to extract the placenta, and the probable consequences if left entirely to the efforts of nature. It was determined to desist from all manual efforts ; to give the ergot in full doses, and, if practicable, to coöperate with it in effecting our object. Uterine contraction was promptly produced by this article ; repeated doses were administered, and almost constant pain kept up. In the evening the uterine tumor could be felt externally much lower down, and of a more globular form. With the exception of pain induced by the ergot, the patient was comfortable ; skin cool and soft ; pulse natural. An enema was directed, and the patient left for the night.

17th. She had rested well during the night ; pulse somewhat excited ; skin warm. The efforts used to extract the placenta had been borne by the patient with little suffering ; but the uterus had now become sensible to every impression. An examination was made only with the view of ascertaining if any change had taken place since the day previous.

18th. She had passed a restless night ; some fever this morning ; skin hot and dry ; no uterine pain. The cord, with a small portion of the membranes, came away in a putrid state. From the particular state of the uterus at this time, all attempts at removing the placenta by manual efforts were necessarily abandoned. The system had now begun to sympathize with the condition of that organ. It became, therefore, necessary to meet this state of constitutional irritation by appropriate general means, at the same time that a solution of the chloride of lime was frequently injected up the vagina in order to correct the fœtor.

It is unnecessary to give a detailed account of all the symptoms and treatment of the case in its progress ; it is sufficient to state that for three weeks constitutional irritation demanded almost our exclusive attention. The chloride of lime had effectually removed all fœtor : the discharge from the vagina had been from the beginning inconsiderable, and of a serous nature ; had soon entirely ceased : no uterine pain had been felt.

About the middle of March our patient was taken with severe pain, and a sense of heaviness in the uterine region. These feelings had continued all night, and we thought it advisable in the morning to examine the state of the os uteri, and if the placenta was about to be thrown off, to assist the uterine efforts. The uterus was found low down in the vagina, and sufficiently open to admit the finger ; the placenta could be distinctly felt pressing on the os uteri ; the finger was insinuated some little distance between the placenta and the internal edge of the uterus. The examination caused an immediate contraction of the os uteri on the finger : any further examination was considered unnecessary. Our patient at this time was considered as convalescent ; the pain ceased entirely in a short time ; her health and strength improved daily.

On the 26th of March she was again taken with sudden and severe pain in the region of the uterus, with a sensation, as she expressed it, as if something was about to come away from her. Under these circumstances an examination was made. The uterus was found low down ; the os uteri entirely closed, with rigid and unyielding edges. Here the examination ceased. From this time she regularly improved in health. In the month of June she left the city for New York, and traveled during the summer. She returned in November in good health, and has

continued so to this time. During her absence she has had no uterine pain ; has menstruated but twice ; *no part of the placenta had ever been discharged.*

Such is a concise statement of facts in the above singular case. How the placenta has been disposed of, is altogether a matter of conjecture. It may be supposed that from the peculiar nature of its attachment to the parietes of the uterus, a circulation of blood was kept up subsequent to the delivery of the child, between the two, and that the placenta became an organized body. Such, however, was the powerful tonic contraction of the uterus, that it seemed impossible for any circulation to go on in a body subjected to such constant and close compression. It appears more probable, that this action on the placenta expressed from it all its fluids, at the same time that the atmospheric air was excluded, and putrefaction prevented ; in this way it soon became a dry, innoxious body, offending only from its bulk.

That for several weeks after delivery the placenta acted as an extraneous body, and that the uterus made frequent attempts to cast it off, was very apparent. It is however unnecessary to pursue these speculations further ; should anything occur at any subsequent time worthy of notice, it shall be communicated. It is the facts which afford matter for serious and useful reflection in cases of firmly adherent placenta. It is now a rule of practice, that as soon as we are assured that the natural efforts of the uterus are incompetent to the removal of the placenta, it should be done by art ; until this is effected, the woman is not considered as entirely safe. 'This is certainly a good general rule, but in very difficult cases the practitioner may be much embarrassed in determining on the extent to which he should go in his manual efforts ; he knows the consequences if rude and undue violence is offered to the uterus ; he dreads the consequences to his patient, and the censure on himself, if the placenta is not removed. Impelled by such powerful motives, a decided and energetic course is pursued ; the object is at last attained ; but if inflammation of the uterus, extending to the peritoneum, and hectic from fever, follow, which at the end prove fatal to the woman, such is the result of the manual efforts used for the removal of the placenta.

In more than one instance have I seen the woman's life sacrificed by an ignorant midwife, acting on what she supposed an axiom in her profession, that 'the placenta must be extracted.' It is not intended by these remarks to censure proper and judicious efforts for the removal of a placenta firmly attached, but to express a belief that if the practitioner goes beyond a certain point, he jeopard's the life of his patient by the very means which he honestly intends for her safety. When this point is reached, and beyond which he should not go, is impossible here to state. Let him reflect on the two evils presented ; let him regard it as a case requiring his most serious attention, and the exercise of his best judgment.—*Ibid.*

RECOVERY FROM THE COLLAPSE OF CHOLERA.

Case of Recovery from the Collapse of Malignant Cholera. By JOHN C. HOWARD, M.D. Physician to the House of Industry at S. Boston.

[Communicated for the Boston Medical and Surgical Journal.]

DECEMBER 1, 1832. At 5 o'clock, A. M. I was informed that Jones, a boy aged fourteen years, was relaxed and had had several stools during the preceding night. He told his teacher that his dejections came away like frost. Rev. Mr. Haskins went up stairs to see him, and found him lively and talkative. Did not think him very sick ; says he had been relaxed since Wednesday. Felt his pulse and tongue ; found the one small and irregular, and the other cold. Dr. Palmer was called up, who passed the night at the House of Industry ; he examined his stools, tongue and pulse. His evacuations were of a thin, watery nature, and the comparison to frost was probably suggested by the froth on the surface of the vessel, occasioned by the chloride of lime put therein the evening previous. Dr. P. having ordered him below, Mr. H. came down stairs with him, and when he had reached the sick room he appeared like one struck with a distemper, as the latter gentleman observed ; he was pale and weak, threw himself upon the bed, and had his clothes taken off.

7 o'clock, A. M. The change that has taken place in Jones is truly terrible. Appearance cadaverous ; pulse gone ; horrible cramps ; cold legs and arms ; nose, lips and tongue also cold, as well as breath. Had a large quantity of strong mercurial ointment with cayenne pepper rubbed in the inside of the thighs.

10 o'clock, A. M. Still cold. Rubbed with hot vinegar and strong cayenne pepper, without the least effect.

11 o'clock. Pulse gone ; coldness extreme ; voice hardly audible ; eyes much sunken and black ; dejections very large, watery, and containing slimy adhesive matters, capable of being taken on a stick.

12 o'clock. Bled him from the left arm ; obtained but two tablespoonfuls of blood, which soon congealed like jelly ; no serum. At this time I gave up his case as hopeless ; but anxious to do something, I administered 40 grs. of the submur. hydrarg. in a tablespoon with sugar.

6 o'clock, P. M. Vomiting and purging ceased, pulse returned. Flesh warmer ; countenance less cadaverous ; eyes more prominent, blood in some degree returned to them ; voice more natural ; somewhat comatose.

December 2. 10 o'clock, A. M. Bled Jones from the right temporal artery, with a view to relieve congestion of the brain and coma, about a gill and a half.

4 o'clock, P. M. Pulse 100 ; full, distinct and regular. Face, limbs, extremities, all above the usual warmth. The former flushed ; tongue moist and warm ; no sickness at the stomach. A basin of water being overturned, he spoke out quite lively, and told the nurse he would ' find something under the bed to wipe it up with.' Complains of no pain except in the head ; upon being asked where, he answered, ' in the brain.' Not at all restless.

6 o'clock, P. M. He had a dejection about one, a pint of muddy water ; pulse feebler in consequence.

December 3. 4 o'clock, A. M. Went into the room, and found him asleep with his eyelids closed, which had previously been kept open most of the time. Was informed he had complained of a pain in his head a short time before. Skin warm ; pulse 98.

5 o'clock, A. M. Was bled from right arm by Dr. Wing ; took away 10 3. Teeth ache severely.

10 o'clock, A. M. Found him asleep with his eyes open.

2 o'clock, P. M. Prescribed blister of flies on back of neck, and cold vinegar to the head ; eyes were closed ; pulse 100, and tolerably full and regular ; comatose ; teeth ache badly ; administered 30 drops paregoric.

3 o'clock, P. M. Very restless, in great pain from teeth ; gave 25 drops paregoric.

6 o'clock, P. M. Nurse says he passed a half pint of urine, which was of good color.

9 o'clock, P. M. In pain from blisters, was very nervous and restless.

December 4. 5 o'clock, A. M. Was more quiet and easy.

7 o'clock. Saw a dejection, which was watery, with a thick, dark and slimy substance ; pulse 112 ; very much debilitated. Blisters drawn well, and dressed.

12 o'clock. Had a dejection, which was watery, with green flakes floating in it, resembling small pieces torn from green velvet, which I thought inspissated bile ; quite weak from several dejections.

3 o'clock, P. M. Pulse 116 ; very much debilitated. Prescribed as a tonic astringent, 3j. of Tinct. Cinnamon and Kino. Had one small dejection.

7 o'clock, P. M. Had another evacuation, unlike the last ; more of a black appearance ; considerable feter to it. Nurse says he asked, a short time since, if he could have a piece of meat.

December 5. 5 o'clock, A. M. Dr. Gay, passing night at House of Industry, gave an opiate to relieve toothache. 8 o'clock. Says he feels better ; looks more comfortable ; speaks louder ; pulse 112. Has made a pint of healthy urine ; wanted beef steak ; was promised beef tea ; symptoms of coma subsided. Had no evacuation during the night ; fever low typhus ; tonics indicated ; thirst somewhat abated. 2 o'clock, P. M. Still better ; took some rare beef gravy, and a small strip of beef, which he seized with the greatest avidity. 4 o'clock, P. M. Looks brighter ; face flushed, pulse 100 ; says the juice of the beef has made him better. Drinks arrowroot with a little brandy in it, and has no inclination to vomit ; no stools. 9 o'clock, P. M. Was seen by Dr. Sumner, who passed the night at the House of Industry. Complained of his teeth aching severely, for which he received an anodyne ; passed a comfortable night.

December 6, 1-2 past 10, A. M. Found him in much the same state as yesterday ; passed a pint of limpid urine. No dejection ; skin in a good condition ; tongue warm, and rather dry, like that which is seen in convalescents from typhous fever. If no dejection, ordered Olei Ricini

3ss. 1 o'clock. To relieve pain of gums and sore mouth, 20 drops of laudanum. 4 o'clock, P. M. Found him in a calm sleep. 6 o'clock, P. M. Still sleeping comfortably, no dejection through the day ; complains of his teeth.

December 7. 9 o'clock, A. M. Has had two good bilious dejections ; says he feels sick at his stomach, probably occasioned by the oil taken an hour since. Says he is not so well as yesterday ; pain in his stomach ; looks anxious ; pulse 100.

December 8. 10 o'clock, A. M. Doing well ; pulse 90 ; two good bilious dejections ; passed more than a pint of limpid urine ; used for sore mouth, a solution of tincture myrrh, alternating with a decoction of white oak bark and alum. For nourishment, mutton broth.

December 9. Improving ; no medicine indicated ; appetite eager ; recovery certain.*

The following fatal case was also observed by Dr. Howard, at the House of Industry, and communicated by him for publication.

December 7. 3 o'clock, P. M., William Rainsford, æt. 56, an inmate of the House of Industry, was met in the wood yard by the Superintendent, going toward the privy, who observing he looked unwell, asked him if he had a diarrhœa ; he said he had been troubled in that way for several days past, had suffered from cold stomach and bowels for a fortnight, and had occasionally vomited cold water. Mr. Simonds advised him to take some medicine to check the diarrhœa. At 6 o'clock he came to him, and said his complaint continued ; his countenance then looked worse, and he was observed to tremble ; appeared frightened. A tumbler of brandy and water, with half a teaspoonful of cayenne pepper, was administered by Mr. Simonds, which he vomited immediately. He went directly to bed, and was seen in half an hour. Had warm face, feet and hands, and it seemed probable he would do well. Shortly the diarrhœa returned ; he imprudently left the room, and purged copiously a thin watery fluid. At 1-2 past 8 his appearance was much worse, purging continued ; evacuations took the rice-water appearance. 11 o'clock, P. M. Growing worse ; took half a drachm of the submuriate, which was probably rejected, as vomiting returned.

December 8. 11 o'clock, A. M. By great exertion succeeded in taking 12 ounces of blood from the right arm ; no serum ; cramps severe ; hands and feet much corrugated ; administered a drachm of submuriate hydrarg. In two hours after the pulse was stronger ; cramps continued ; rubbed with snow, which soon relieved him. 1-2 past 12 o'clock, P. M. Bled from left arm, an ounce obtained ; serum absent ; breathing very laborious ; cramps ceased ; pulse 88, small and weak ; rubbed inside the thighs, strong mercurial ointment, with cayenne and camphor ; sinapisms to the feet and hands, previous to which they were soaked in hot water. 4 o'clock, P. M. Pulse almost gone ; hands and feet much corrugated and very cold ; countenance cadaverous ; alteration from yesterday truly astonishing. Voice almost gone ; can speak only

* Dr. Palmer was present when the patient was taken sick, and administered an emetic, which was ejected immediately, with no bile. He saw him sink into collapse, and expressed his decided opinion of approaching death, as did other persons who saw him.

in a whisper ; very restless ; debility extreme ; cramps less frequent ; fast sinking into collapse. 8 o'clock, P. M. Pulse imperceptible ; respiration very laborious ; thirst intense ; discharges less frequent. Ordered a scruple of submuriate hydrarg. every half hour, with a view to bring about reaction. Seems conscious of the probable termination of his case, and is reluctant to take anything ; very thirsty ; seen occasionally through the night by Dr. Gay. Died at 6, A. M. December 9th.

Post Mortem Examination.—*Lungs*, found as usual in this disease, in a state of extreme congestion ; adhesions to the parietes, consequence of old inflammation. *Stomach*, somewhat inflamed, and contained considerable thin fluid ; mucous coat easily taken off by the handle of the scalpel, and clearly showing serous coat. *Intestines*, very much inflamed, to the complete disorganization of mucous membrane ; the small intestines containing three pints of bloody serum. *Liver*, very much congested with blood, the consequence of collapse ; otherwise healthy. *Bladder*, very much contracted, about the size of a walnut. *Brain*, vessels fully injected, a considerable effusion between the membranes, and a considerable deposit of serum in the ventricles.

CLINICAL NOTES.

BY JONATHAN SIBLEY, M.D. OF UNION, MAINE.

[Communicated for the Boston Medical and Surgical Journal.]

Erysipelas.

IN February, 1831, a young woman, after a laborious travail with her first child, remained quite comfortable thirty hours. She then had a cold chill, succeeded by heat, pain, tumefaction and tension of the bowels, with suppression of the lochia. Warm baths, cathartics and anodynes, were used, and had the desired effect, so far as *entirely* to remove the pain, swelling and inflammation in the bowels—even the soreness and tenderness to the touch seemed to subside in a night. Under these favorable circumstances I heard her make a slight moan, and thought she had an *after pain*, which might possibly have a favorable effect upon the lochia ; but this pain was in the side !

Very early the next morning, with surprise, I found her sick with pleurisy—pain in the side and distress for breath, with the other appearances usually accompanying inflammation in the pleura and lungs—lochia still suppressed. I bled her lightly, which gave some relief. I blistered the side, and applied a bladder of hot milk and water to her. The next morning she was worse—had experienced a distressed and restless night ; occasionally a little delirious, with a slight cough. I took about three ounces more of blood from the arm, gave some opium, and applied another blistering plaster near the former.

We had now a new and very extraordinary appearance before our eyes. Across the patient's breast there was a *pale, dirty-looking* and *slightly inflammatory efflorescence*. At first I thought it the effect of the flies ; but the attendants said ' no, the plaster has not slipped,' and said it looked as though *tar* had been applied to the skin. This appearance

was clearly marked by a right line obliquely across the breast, rising a little from the left to the right side of the patient, as straight as could be marked with a rule and pencil. Below this line was the efflorescence ; above, the skin was entirely natural. This line of distinction, when first discovered in the morning, went obliquely over the ensiform cartilage. In the course of the day and evening, it *ascended* regularly across the nipples (still bounded by the same *straight oblique* line), about four or five inches toward the clavicles. There did not appear to be either tension, tenderness or tumefaction in this efflorescence.

When the friends of the patient inquired of me for the cause of this strange appearance, I frankly told them that I did not know ; I did not even think of erysipelas at that time. At midnight Dr. Estabrook called upon us. After examining the patient, he took me aside and said, this is a case of *Erysipelatous Pleurisy*. The system is exhausted, the pulse is feeble and fluttering, the mind is delirious, and the countenance ghastly ; your means are all exhausted, there is nothing more that you can do ; the patient will certainly die. I then took him to the bedside again, and we examined the patient the second time, particularly the efflorescence upon the breast ; when we were fully satisfied that this was a case of *erysipelatous inflammation* upon the *pleura* and *lungs*, as well as upon the *surface of the breast*, and that this erysipelatous inflammation (which tends so directly to mortification) was a *metastasis* from the abdomen to the thorax. The patient died the next morning, five days after her *confinement*.

Dr. E. informed me that this disease (this internal as well as external erysipelatous inflammation) had prevailed extensively in the eastern part of the State, and had excited great alarm among the inhabitants in that section of the country ; that women in child-bed were particularly liable to it, and that it had been very mortal among them—twelve women having died with it in one year at Passamaquoddy. He further added, that several *men* had been attacked with it in Camden, and that two or three had died with it. It generally begins in the bowels, and then frequently shifts to other parts of the body, as the pleura and lungs, and sometimes the face. When there is a metastasis or a shifting of the disease from one place in the body to another, as the inflammation prevails in the second place of attack it of course subsides very quickly and soon entirely disappears in the place of its first attack.

CASE II.—In January, 1831, a robust, middle-aged man was attacked with pain and swelling in the bowels. We called it colic. A little preternatural heat prevailed upon the patient, and the tongue was slightly coated. Castor oil, with jalap and calomel and a warm bath, succeeded by opium, soon relieved these complaints in the bowels, and the man was better. When I applied my hand to the side of the patient's face to try his temperature, he complained that I hurt him. On examination it was perceived that erysipelas was beginning to appear on the *right* side of the face, which prevailed in the usual way, ascending up the right side upon the temple and over the top of the head and forehead, and then down upon the *left* side, slightly affecting the left cheek. All went off in about a week. The applications to the face were nothing but dried flour and soft tow. As the inflammation commenced and increased upon the face, the soreness and pain of the bowels subsided entirely.

In the commencement of this case I presume there was an erysipelatous inflammation of the bowels, and then a metastasis of the same inflammation to the face.

CASE III.—A laboring man, who had made himself rich by agriculture and land speculation, lived freely and grew fat as he advanced in years. When he was old he had sore legs. Several years after they first became sore, he was attacked with an inflammatory complaint in the winter, which at first appeared to be constitutional. I gave him *tinct. emetic* and calomel in small and divided doses, which operated freely, and carried off the complaint *entirely* in a night. The next day we discovered an extensive erysipelatous inflammation upon one of his legs. This proved severe and lasted a week or ten days, and then went off by resolution, with a desquamation of the cuticle. We applied to the leg flour and tow.

This erysipelatous inflammation appeared to injure the leg; it grew large and clumsy afterwards, and the sores were worse than before.

The other leg was sore, but not so bad as this. These legs continued troublesome year after year, and every year grew worse. Many physicians were consulted, and different methods of treatment were tried, but nothing did any real good. Cold water was poured upon them, but the man thought this application injured them.

Hydrocele.

A young man with a hydrocele applied to me for assistance. I punctured the tumor, and evacuated the water. Nothing else was done. I advised a radical cure; and among other means for accomplishing so desirable an object, I described to him the method of using the seton. To these observations he made no reply. In the usual time the sac was filled again with water as before, and the lad let it out with his pen-knife; this he did two or three times in succession in the course of a few months, when he had recourse to the seton, and used it in the following way. He armed a large sail needle with cotton thread, and introduced the point of the needle into the opening which he had made with the pen-knife, in the lower part of the scrotum, to evacuate the water, and then crowded up the needle as far as he could conveniently, pushing it out through the skin at the upper part of the scrotum, and pulled through these wounds the cotton thread. He let the seton remain in the scrotum two or three days, when he thought it had been there long enough to accomplish his object, and then took it away and washed the parts with brandy. By these means a *radical cure* was accomplished. This was all done by the lad, privately, and his conduct kept a secret seven years, when he cautiously related it to me, not two days ago, as I inquired after his hydrocele, and said the side on which he operated was then as well as the other.

This man was altogether ignorant of anatomy, and of every principle of surgery.

December 1st, 1832.

INFLUENCE OF OCCUPATION ON HEALTH.—NO. III.

[Communicated for the Boston Medical and Surgical Journal.]

3. **PRINTERS.** The very various processes included in the art of printing, are attended with corresponding effects on the health of those who practise them. As respects the employment of the muscles, we may observe that pressmen have sufficient and varied exercise, as much so in fact as is afforded by any occupation which has been mentioned. The evil, if any, in this respect, arises rather from excess than defect. The occupation is too laborious to be continued without intermission, during the whole number of hours usually devoted to work. There is no doubt that the alternation of this with the lighter departments of the office would be more favorable to health than the exclusive attention to either. This is often practised, indeed, in those establishments where but a small number of hands are employed ; and the fact affords a simple and obvious illustration of the principle before stated, as to the influence of subdivided labor on the human system. The success of the business, indeed, depends mainly on the skill of the individuals engaged in the several departments ; and this is best promoted by assigning to each his particular branch of labor. The immediate convenience of the workman himself is perhaps best consulted by the same arrangement ; for there is inevitably a certain feeling of awkwardness experienced in turning the hand from one department of labor to another. But that some degree of physical vigor is sacrificed to obtain these advantages, will scarcely be questioned. As respects compositors, who are obliged to maintain a standing posture for many hours together, unless they also use general exercise the digestive organs will be very likely to suffer. Where, again, from general debility, intemperance or other cause, local affections of the lower limbs already exist, the posture will have an undoubted tendency to aggravate them. A very great and unnecessary evil endured by printers, is the heat of the rooms in which they work. On this point it is worthy of remark, and applies to many other occupations beside the present, that where the temperature of a room is left to a large number of persons, the inclination of him who requires the greatest heat becomes almost of necessity the rule for all ; and thus a degree of heat is submitted to, which, under other circumstances, would be regarded as intolerable. The obvious remedy for this evil is the introduction of some better standard than the caprice of individuals, and the regulation of the heat of these apartments by a thermometer.

CLASS III.—*Sedentary occupations, or the labor of which is light, and admits or requires a sitting posture.* This class includes the great proportion of the occupations of females, such as the various kinds of needle-work, and many also of the trades practised by men ; such as those of jewellers, watchmakers, engravers, pocket-book makers, workers in tin and silver, and bookbinders. Some of these I shall have occasion to mention under other heads.

The evil of those occupations which are distinguished merely by being sedentary, may be considered as negative rather than positive ; that is, as arising more from the privation of the necessary exercise, than from any

injurious agency of the posture itself. In this manner, the present class is distinguished from the last, with which it has otherwise much in common. In the position of sitting there is nothing injurious, neither is any sense of restraint or fatigue induced by it, even when it has been continued for many hours. The evil of occupations merely sedentary is, therefore, only felt when the application to them has been excessive, and such as to leave no time for relaxation and exercise. Even when this is the case, the evil may not be felt for a considerable time, provided the constitution is such as does not require much activity. In general it may be remarked, that as men maintain the standing posture better than women, so the latter bear sitting better than men; and there are those who can sit at their work the whole day, with the exception of the time required for meals and sleep. Generally, however, this kind of life produces indigestion; and not unfrequently troublesome local complaints will likewise ensue. The case is worse with those who allow the intensity of this kind of labor to rob them of the hours which should be given to sleep. Yet this description of imprudence is by no means uncommon in women who work by the job and for small wages. I have known more than one instance in which the period of sleep was reduced to six or even five hours; and the remainder of the twenty-four spent in almost constant application. But the hours thus taken from sleep, though they seem to be gained, do not eventually prove so. The powers of the system, gradually exhausted, at length refuse to lend themselves to the dictates of the will; and perhaps when the injurious exertion is at length desisted from, it is already too late to remedy its destructive influence.

A singular result of inquiry into this subject, is that sedentary occupations, without exercise, have a direct tendency to produce pulmonary consumption. By comparing the records of several large hospitals in Paris, it was found that the occupations which have the greatest tendency to induce this complaint, were those in which the trunk of the body remained wholly inactive, and the upper extremities alone were exercised; and it accordingly appeared that consumptive complaints were much more frequent in women than in men.

As respects men whose employments are sedentary, the greater part will find it necessary to take some active exercise to counteract what a lively author calls the immobility of the solids; and this, sometimes at no small sacrifice of inclination to duty: for although the first effect of confinement is to produce a desire for motion, yet where it has been long continued, the power of the muscles becomes impaired, the limbs are cramped, and the body is rendered torpid and sluggish. In this state of things rest is more agreeable to the feelings than motion; and it is only by mustering some resolution that the exercise of the limbs, which is felt to be necessary, can be obtained.

PROFUSE AND OBSTINATE HEMORRHAGE.

Case of Profuse and Obstinate Hemorrhage after the Extraction of a Tooth. By CHANDLER ROBBINS, M.D.

[For the Boston Medical and Surgical Journal.]

ON the day before Thanksgiving, Mr. G. a respectable merchant in this city, called on me for relief, having been some time suffering from acute

odontalgia. The offending member was the second molar tooth on the left side of the lower jaw, and he wished to have it extracted. I referred him to a dentist. The gentleman I named to him being engaged, he waited till the next morning, and then, finding him again occupied, submitted himself to another, who extracted the tooth without previously separating the gums from it. A small portion of the inner alveolar process was broken off in the operation, and remained attached to the body of the tooth, and the soft parts about this portion were considerably lacerated. The subsequent hemorrhage was profuse and obstinate. It continued during the remainder of the day, and abated nothing in the evening or night. In the course of the night, the bleeding increased; and the consequent exhaustion was so great that no further delay of medical aid was deemed prudent. Not being able to procure my attendance, Mr. G. had the assistance of another medical gentleman, who sedulously applied the proper local remedies for nearly two hours, but without arresting, and but little if any abatement of the hemorrhage.

I first saw this patient on Friday morning. The blood still flowed from his mouth in a continued stream, and he computed the quantity he had lost in the twenty-four hours, at *two gallons*; judging from what I saw and learned of his case, it could not have been less than as many *quarts*.

On a minute examination of the part, I found that the cavity left by the tooth itself was entirely plugged by coagulated blood, and the hemorrhage proceeded from the vessels that were ruptured by the laceration of the soft parts on the inner side of the jaw. The pulse was small, but not without activity, although the face and hands were rather exanguious. Considerable prostration of strength was complained of, but only occasionally any sensation of faintness. The first step I took, was to raise the patient from a horizontal to a sitting posture. A small dossil of cobweb was then moistened in the solution of sulphate of copper (which had been perseveringly used for several hours), rolled in powdered alum, applied with some pressure to the wound, and retained there as long as could be done conveniently; although much difficulty was found in this, since the taste was particularly disagreeable to the patient, and every movement of the tongue changed the position of the patulent vessels. This was directed to be repeated as often as necessary, and the patient to be kept cool and free from excitement or alarm. At the expiration of an hour I found the blood still flowing freely, and without any degree of abatement. I now laid aside all these local astringents, directed cloths wet in cold water to be kept on the face, and cold water to be occasionally held in the mouth; and administered one grain of the powdered leaves of digitalis—a medicine that had seldom disappointed me in any species of hemorrhage. At the end of another hour, the pulse was less active and the bleeding had abated, but not much. Two grains of the digitalis were now administered. In an hour after, I found the patient asleep, having been so about twenty minutes, with no hemorrhage. It was now ten o'clock in the forenoon. I visited him again at twelve, when he was sitting up and feeling tolerably well, with a pulse of 80, small and weak, clear headed, and without any recurrence of hemorrhage. A dose of oil in the evening finished the case; and after

taking bark a day or two, Mr. G. returned to his business, and has since experienced no loss of blood and but little inconvenience from the wound in his mouth.

This case is published because it is thought an instructive one in several particulars, but especially as it illustrates the advantage we may derive from foxglove in circumstances of some embarrassment. If we cannot plug the hose, we can check the movements of the engine.

Boston, December 8, 1832.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, DECEMBER 12, 1832.

WORMS.

THERE are few subjects on which a medical man is more frequently consulted than the probability of a child being afflicted with worms. Parents are ready to find in this theory an explanation of any symptoms which appear to them anomalous, and the physician is often appealed to on these occasions in the confident expectation that he will confirm the diagnosis so ingeniously arrived at. There would be little objection on these occasions to indulging the fancy thus adopted, and avoiding all dispute by a polite assent, did not the admission of the existence of so serious an evil involve the necessity of suggesting adequate means for its speedy removal. If the point is once conceded that the worms are there, the credit of the medical man is pledged to make good his words by dragging the intruder forth and exhibiting him in open day. This, however, is not always to be effected so easily. The most potent anthelmintics and cathartics utterly fail in producing the intended effect, until at length the doctor is reduced to the alternative of permitting to be called in question the omnipotency of his skill, or the infallibility of his judgment, since ‘*de non apparentibus et non existentibus eadem est ratio.*’

The truth seems to be that what are ordinarily assigned as symptoms of worms, are signs of a very equivocal character, and such as may be produced by various kinds of intestinal irritation. Thus the starting in sleep, the half open eyelid, the grinding of the teeth, the irregular appetite, fetid breath, and tumid abdomen, are all signs of the existence of intestinal disorder, but do not point distinctly to this as the sole or ordinary remote cause. The only sure sign of the existence of worms is furnished by their actual appearance in propriâ formâ; and even after this, it is not always easy to dislodge any others except the particular individuals which have thus thought fit to make their appearance. The most easily recognised, and one of the most frequent forms of invagination, is the burrowing of ascarides in the rectum, where they occasion

almost constant local irritation. In this case they are all most effectually got at by saline or bitter injections, which generally induce them to shift their quarters in considerable numbers. We still remain in our ancient ignorance in regard to the mode in which these unwelcome inmates gain admission; and they now furnish, perhaps, the strongest argument in favor of the theory of spontaneous generation. With regard to their mode of reproduction, the tapeworm is said to be oviparous; while both the lumbricus and the threadworm produce their young alive. The most important question, however, relates to the modes of getting rid of them; and whilst we would refer the reader to Dr. Dewees' work on the diseases of children, for excellent advice on this point, we would record our own experience in favor of spigelia, after a thorough evacuation of the canal by calomel and rhubarb.

PROFESSOR FOLLEN'S FUNERAL ORATION.

THIS beautiful Eulogy is just published, appended to which are some account of the proceedings of the friends of Dr. Spurzheim at the time of his decease, and the funeral Ode of the Rev. Mr. Pierpont. We shall take an early opportunity to present the reader with a further account of the Oration, or some extracts from it.

Whole number of deaths in Boston for the week ending Dec. 8, 29. Males, 16—Females, 13.—Still-born, 5.

Of throat distemper, 1—old age, 3—scarlet fever, 2—consumption, 7—rheumatic fever, 1—typhous fever, 1—inflammation in the bowels, 1—paralysis, 1—croup, 2—hooping cough, 1—drowned, 1—dropsy, 1—canker in the bowels, 1—cholera malignant, 3—unknown, 1.

ADVERTISEMENTS.

MEDICAL SCHOOL OF MAINE.

THE MEDICAL LECTURES at BOWDOIN COLLEGE will commence on MONDAY, the 18th day of February, 1833.

Theory and Practice of Physic, by JOHN DELAMATER, M.D.

Anatomy and Surgery, by REUBEN D. MUSSEY, M.D., Professor at Dartmouth College.

Obstetrics and Medical Jurisprudence, by JAMES McKEEN, M.D.

Chemistry and Materia Medica, by PARKER CLEAVELAND, M.D.

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HYDROPHOBIA.

Facts in relation to several Remarkable Deaths attributed to Hydrophobia. Communicated to the Editor of the American Journal of Science and Arts, by the Rev. WILLIAM CASE.

Chester, Conn., October 14.

DEAR SIR,—In compliance with your request, I have endeavored to collect the facts respecting the supposed cases of hydrophobia in this place, and the transmission of the poison from one human being to another. I ought, perhaps, to state that most of the physicians, consulted in the three cases of supposed transmission from one human being to another, attributed their death to some other disease, such as might be supposed to be attended by symptoms similar to those which characterize this malady. It is believed, however, that the material facts in these cases were never fully made known to these gentlemen. Neighbors and attendants, in whose possession they were, feared, perhaps, to disclose them.

Allow me to say that I was in some measure prepared to feel the dangers of this disease, from having, in my early years, assisted in destroying several rabid animals. The first was a dog nearly spent with the disease. He was killed by a gun, in my father's barn-yard. The utmost care, I well remember, was taken to avoid touching the animal, and to remove and bury with him the straw and loose materials on which his saliva had fallen. At a subsequent time, while the family were at breakfast, a fox appeared in the same yard, in pursuit of the fowls. He ran after them, and, when they flew, jumped high to seize them. He was not intimidated at the sight of men, or by the throwing of clubs and stones. Fears were entertained of his being rabid, and the life of a noble dog was risked in preference to suffering the animal to escape in this state. He was too feeble to run with great speed, and the dog overtook and seized him at the distance of a hundred rods. I followed in the pursuit; and with the aid of the trusty dog, a billet of wood, and a stone, killed the fox. The poor dog, which every member of the family regretted to lose, was shut up in a small stable, and fed and watered, daily, with care. In about fourteen days he began to refuse food, and to be averse to water. He soon began to loll, to discharge saliva, jump towards the scaffold floor, bite sticks that were thrust through the sides of his prison, and, when excited, to fly at its sides with such force

that he broke off his long teeth. It became evident that he was rabid, and he was killed to shorten his sufferings.

In 1807, W. C.* was bitten and wounded by a mad dog, when at the age of eleven years, and on his way home from school. After biting this youth, the dog was confined in a small apartment in his owner's house, where he was seen by many persons, and where he exhibited all the symptoms of hydrophobia. A person, in company with others, with a gun in hand, ascended the chamber stairs, displaced a part of the floor, and through the aperture shot and killed the dog. These facts are attested by a man who was an eye witness, and they are corroborated by many others.

At the time of the bite, in 1807, W. C. is said to have had a feeble constitution, but it is testified on all hands that he grew up without sickness. It is said he conducted strangely, by turns, some time before his last sickness. The disease appeared in him fifteen years after the bite, and was preceded by mental irregularity. He had a short season of strange excitement, during public worship on the Sabbath. At a neighbor's house, the next day, he suddenly jumped, screamed, broke windows, and ran out at the door, with great nimbleness of foot. He soon became quiet and returned; and when his friends remonstrated with him for such conduct, he said he could not avoid doing thus, for he had been bitten by a mad dog. During the progress of the disease, he gnashed his teeth, † discharged large quantities of saliva, had distressing spasms, and was set on biting every body and every thing. The pillow cases, through which he made holes, by taking them in his teeth and shaking them, are now to be seen. He spit on persons who came in, and on all parts of the room. He was averse to swallowing anything. He watched for opportunities to bite persons, and if he could bite any one it seemed to afford him pleasure, and was followed by laughing. He lived, after his attack, fourteen or fifteen days. It required four or five able men to attend upon him. He died Sept. 1st, 1822, aged twenty-six years.

L. T. C., S. W. H., and C. C. a brother of W. C., were all bitten by W. C. while attending on him in his last sickness. The bite in these three cases drew fresh blood from the hand or wrist, and this fact is attested by many witnesses. These three cases were preceded by mental anxiety, and followed by spasms, delirium, and lucid intervals. The first spasms were of short duration, and attended by jumping, hopping, and screaming. Successive spasms continued longer and became more severe. The eyes of all assumed a glassy and watery appearance. What I have termed discharge of saliva, was, in all these cases, called frothing at the mouth.

* The rabid dog which bit W. C. was seen when he was bitten by another supposed to be rabid. I had the facts from a gentleman now residing in Ohio, and as nearly as I can recollect they are as follow:—A strange dog crossed the orchard adjoining his house, and was seen, without provocation, to seize and bite the dog which bit W. C. The gentleman's daughter, then a small girl, now the widow of C. C., was in the orchard at the time, and her mother seeing the dog in the act of biting the other, and being alarmed, called her in. The circumstance she well remembers, and says the bitten dog fled into her father's house, instead of his owner's, not more than four rods distant, and ran under the bed. The stray dog afterwards appeared in front of the house and sat down. The gentleman pointed out the spot, described his appearance, and said he had not a doubt of his being mad. If I do not misremember, he was destroyed. The bitten dog bit W. C. between two and three weeks after he received his own bite.

† It is stated also that he howled and growled, but it is easy to suppose that the imagination may

L. T. C. was a strong athletic man ; he was bitten in 1822 by W. C., and after a sickness of two weeks died March 13, 1826, aged thirty-two years. Some weeks before his confinement, he exhibited symptoms of mental aberration.* He would hop backward and forward, and talk incoherently, for a few minutes, and then say he was sorry he conducted so, but he could not avoid it. His attendants say, the taking of water or drinks made him rave. A spectator observes, that he sometimes called for drinks, when it seemed as if he thought they would be refreshing, and do him good ; but no sooner had he filled his mouth with the fluid, than he would spirt it in the face of him who offered it, and decline to swallow the drink. So strong was his aversion to swallowing, that a near relative questions whether he could swallow. Another says that drinks were sometimes forced down ; but he shuddered at swallowing. With his mouth he seized by the arm a person attending upon him, and through thick clothing left upon his flesh the print of his teeth. He immediately said, ' Now I have hurt you, and I am sorry ; but I could not avoid it ; I must either die myself or bite you.' If he had not been confined, says one, I have no doubt he would have bitten every person in the room. A part of the time, it required seven able men to keep him to his bed and in his chamber. It is said that he was not known to walk to or from the bed, but always leaped off and upon the floor ; he would whirl suddenly round, and shift his position on the bed, and sit on his feet, and the by-standers imagined that he imitated the motions and the barking of a dog. He frothed at his mouth and ran out his tongue. He spirted drinks into the face of his attendants, spit on them, on every body and every thing, and all over the room.† His efforts in spasms exhibited such strength as literally to frighten his attendants.

S. W. H. sickened and died Aug. 10, 1827, aged thirty years. He was sick five days. Although he had been for years subject to epilepsy, yet there was no appearance of this disease in his last sickness. He was bitten by W. C. in 1822, and carried the scar of the bite to his grave. At the time, there was no general apprehension of hydrophobia, nor any excitement on the subject. It is not known that the fact of his bite was mentioned to his physician. His disease was pronounced to be something else. Whatever it might have been, it was preceded by mental anxiety, and attended by the following symptoms. He at first inclined to wander from his house, and gave indications of mental aberration, and of a great dread of water. He resided near a small lake, and before being confined to his room, requested his companion to keep him from the water, and be sure and not to let him get into that lake ; if he did, it would kill him. He is represented as having had, in the first stages of his disease, a constant dread of water, but six hours before he died he called for some, and drank of it. Before his spasms commenced, he entreated his wife, that if he should be as W. C. was, she would procure

* It is not supposed that there was any proper delirium, but merely that degree of aberration which might be supposed to arise from the violent paroxysms of the disease in a very strong muscular subject. L. T. C. and C. C. particularly were very powerful men, and C. C. was unrivalled as a wrestler.

† The prevailing popular impressions on this subject are well known ; perhaps it is not surprising that some of the distressing and various appearances in hydrophobic patients should be attributed, by the terrified beholders, to a specific canine influence. Medical men do not admit the genuineness of these appearances.

some strong man to take care of him, and be careful to get some one who would make him mind, lest he should hurt others. During one of his spasms, he bit his tongue and loosened a piece of it. He requested his wife to take the scissors and cut it out, but to take care and not get any of the blood on her. He would take drinks to oblige his friends and attendants, but they say he always swallowed with a convulsive effort, such as they cannot describe. The disposition to wander continued to the last. He tried various expedients to be released, and to escape from the house. He would grin and fix his glaring eyes on his attendants, when near him, in such a manner as to make them guard against being bitten. He would take a handkerchief and bed clothes in his teeth, and bite and shake them. He is represented as of a peaceable disposition, and some of his friends think that he made great efforts to curb the disposition to bite.

The death of L. T. C. and S. W. H. left on the minds of the community an impression of mystery. There was a general feeling that the cases were very singular. Individuals, who witnessed their sickness, and were acquainted with the facts above mentioned, firmly believed that they died of hydrophobia: but no professional man had encouraged that belief, or laid stress on the facts which supported it; and the friends, for obvious reasons, were not forward to express it.

Things remained thus, till C. C. a brother of W. C. sickened and died, March 24, 1828, aged thirty-seven years. He was sick but eleven days. He was a strong laboring man, and had never before been the subject of sickness. After attending a meeting in the evening, he retired to rest, and slept as usual. About midnight, he suddenly sprang from bed, and ran undressed into the street, screaming so loudly as to alarm his neighbors. From this first decisive appearance of his disease, remedies seemed not even to abate his distressing symptoms. Nor was his malady suspected by his attending physician, till the third or fourth day. On my making inquiries of a parishioner, in regard to the sick man, he said to me, 'He is no better. Do you know what people say about C.? They say he was bitten by his brother W. who died with hydrophobia, and they can prove it, and they know he is mad.' I immediately made inquiries, and became satisfied that this was not mere talk. I saw, the next day, his attending physician, and having mentioned the facts to him, I asked if he had suspected the nature of the disease. He replied, no. I then inquired if he would not examine his authorities and look for the symptoms of the disease, with sole reference to them. His next visit to the sick man resulted in his conviction that his disease was hydrophobia. The physician had told the attendants that if they would preserve some of the saliva, and inoculate a dog with it, he would become rabid in a certain number of days. They had carefully taken up on a woollen string and dropped into a phial a quantity of this, and corked the phial. They had selected the victim and the place of his confinement, and were holding the corked phial in the hand, when the man was seized with his last spasm. The phial was suddenly dropped, and all search for it in future proved ineffectual—a circumstance deeply to be regretted, for had the experiment been made, the result would probably have removed from every mind, capable of appreciating it, all doubt respecting the sick man's disease.

The following are some of the facts as stated to me by his physician,* and corroborated by his widow and those who attended him. The sight of water produced a recurrence of distressing spasms; or, in the words of the attendants, made him rave. In the intervals of spasms, he was rational. In one, he requested his father-in-law to remove and hide his razors, for he did not know what he might be left to do in his turns. In another, he gave this caution to his wife: 'I wish you to keep away from me when I have these turns; I know not why it is, but I want to bite, and I fear I shall bite you.' His attendants think he strove to curb the disposition to bite. It was, however, very evident. A neighbor one evening entered the room. On seeing him, he immediately said, in a pleasant way, 'How do you do, Mr. B——? I am glad to see you. Come here; I want to shake hands with you.' The neighbor approached, and extended his hand. The sick man seized it instantly, and with a convulsive spring rose from the lying posture and drew it to his mouth. The attendants who stood near, and expected this result of shaking hands, instantly seized Mr. B——, and forced him from the sick man's grasp before he was bitten. He talked much about biting; and the attendants, as usual in such cases, imagined that he growled, snapped and barked, like a dog. The shaking of pillows and bed clothes in his teeth, was a frequent exercise. His eyes were glassy and watery. He spit much, the night after he left the bed, and during his sickness. He spit to all parts of the room, and watched the opportunity to spit on persons who came into it. During his sickness, and especially the night before his death, he screamed and hallooed dreadfully.

On the supposition that these are to be regarded as cases of real hydrophobia, the facts will stand thus:

1. W. C., first victim, bitten by a rabid dog in 1807. Sick fifteen days. Died fifteen years after the bite, in 1822, *Æ.* 26 years.
2. L. T. C., second victim, bitten by W. C. in 1822. Sick fourteen days. Died short of four years after the bite, in 1826, *Æ.* 32 years.
3. S. W. H., third victim, bitten by W. C. in 1822. Sick five days. Died five years after the bite, in 1827, *Æ.* 30 years.
4. C. C., fourth victim, bitten by W. C. in 1822. Sick eleven days. Died short of six years after the bite, in 1828, *Æ.* 37 years.

These facts are well established, and they preclude the necessity, if not the propriety, of referring the symptoms of the disease to what is sometimes termed spontaneous hydrophobia. Nor did the previous habits of life, in a majority of the patients, at all favor such a reference of their symptoms.

C. C. was a constant spectator of his brother W. C. in his last sickness. They died in the same house. C. C. also watched with L. T. C. and S. W. H., and repeatedly told his wife, as she now affirms, that they were sick just as his brother was. A sensible man who witnessed three of the cases, says the persons were sick alike, as nearly as the difference of natural dispositions and the habits of life would permit.

* Dr. Noyes, who was the attending physician in the last case, intended to collect the facts and draw up the statement. We had conversed on the subject, and agreed in our views of its importance, and he had consented to undertake it. His early removal prevented. I shall always regret that the task had not devolved on some member of the medical profession.

Different individuals, who observed attentively two or three of the cases, bear the same testimony, in such numbers as to include in it all the four. With persons at all acquainted with the facts and the cases, it is now the general opinion that the disease was hydrophobia.

All four dreaded confinement, and exhibited great quickness of apprehension in regard to persons and circumstances which surrounded them. There was uncommon agility and sprightliness in their motions, and an evident display of cunning, especially in their efforts to escape and to bite persons. Till within about two days of the termination of the disease, the patients were not only inclined to escape, but a primary object of the intended escape was to have opportunity to run. It is the opinion of the attendants, that if they could have escaped, they would have run till they dropped down dead. One, among other things, pretended to have business at a place sixteen miles distant. He plead with his attendants to let him place his feet on the door steps, and assured them that if he might do it, he would run so that no man could overtake him till he had reached the place.

The fears of all were that they should injure others. One was, at times, afraid of receiving injury from others ; but this fact, it is believed, may be explained by a reference to circumstances peculiar to himself. All that is claimed, however, is that there was a general concurrence in the class of symptoms to which allusion has been made. From momentary agitations, connected with slight mental aberration, the spasms gradually increased, in duration and force, to the last. One attendant says the strength of the patient seemed to increase during the spasms, till he finally sunk under them. This man's services have always been sought, and freely rendered, in extreme sickness. He affirms that he never witnessed cases at all resembling these. In attending on the last individual, he covered with rags spots of fractured skin on his hands, lest the saliva of the patient should reach them. Another procured and constantly wore a pair of stout gloves. An attendant in one of the cases, says, that twelve hours' service at a time was as much as he could endure, and that others were obliged frequently to change, and retire from the scene, and suspend the efforts required of them when present.

Many testify that there was in all the cases, during the spasms or spells as termed, an uncommon scent from the patient's breath. This was observed in every case by numbers. Some designate it by the epithet strong ; others say that they never experienced the like before, nor since, and they cannot describe it. All seem to remember it as perfectly distinct in its character. One person, in endeavoring to convey an idea of it, said it resembled that of cats and dogs when fighting. This smell was not perceived except at the times when the patient raved, or had spells, and frothed at the mouth.

It is the opinion of attendants, that the patients were literally stiffened during the spasms, and that in the latter stages of the disease they might have been raised up erect, by the application of force to the head, without any bending of the body. The corpses were stiff immediately after dissolution, and the jaws set so as to require no muffler. On them, and near the surface of the skin, blue spots appeared, which some mistook for indications of mortification. One was kept four days, and on this

body the spots wholly disappeared, and it underwent no other visible change. It is stated that the spots appeared as soon as the patient was supposed to be struck with death; and that when they disappeared, they left the skin slightly affected, and of a greenish hue. It is said the corpses had a strange appearance, the countenance resembling that of a living person in health when cold. Some designate this appearance by the epithet blue.

P. S. An intelligent medical man, who has heard the above statements, and conversed largely with witnesses, believes these cases to have been hydrophobia. Two of them have been attributed by others to delirium tremens, but the previous habits of the patients did not favor that idea; none of the four were addicted to the use of ardent spirits, and one of them had a constitutional aversion to distilled liquors.

DR. WARE'S CASE OF ISOLATED CHOLERA.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—You have frequently requested the readers of your Journal to furnish you with any case of malignant cholera that has occurred or may occur in their practice. As the following case occurred in the country, and the subject of it had never been near any one who had been sick with the disease, it may throw some light upon the question of the contagiousness of the malady.

The subject of this case was Mr. Stillman Willis, aged 48, who lived at the Upper Mills, in Dorchester. On Monday, October the 22d, Mr. Willis continued at his work as usual until noon. Having eaten his dinner, he complained of feeling rather debilitated, and concluded not to return to his labors that afternoon. His debility was occasioned by a diarrhœa which he had suffered for a number of days previous, and which on this day had increased. He however employed himself near home about some light work, until 4 o'clock. At this time he returned to his house, and complained of feeling sick at his stomach and of pain in the bowels. At 5 o'clock he vomited a large quantity of thin fluid resembling rice water, and had a profuse dejection from the bowels of the same kind of matter, amounting to some quarts. These evacuations so weakened him that he could not support himself, and he fainted while his friends were assisting him up to his chamber.

I was immediately sent for, and saw him at 6 o'clock. The general aspect of the patient was such that I was led at once to suspect that he was laboring under the cholera, and that the collapse stage had already taken place. At this period the whole features of the man were shrunken, and expressive of great anxiety, suffering and distress. The skin of the face, neck, arms and legs, exhibited a deep leaden hue. The eyes were sunken and surrounded by a broad circle of a dark violet color. The whole surface was cool; and the feet, legs, hands and arms, were cold. The pulse at the wrist could not be felt. The tongue was white, moist and cool, and his thirst urgent. He complained of great distress at the pit of his stomach; and spasmodic contractions of the fingers and

toes, and muscles of the legs and arms, were frequent and attended with pain. His respiration was rather slow, but laborious, and breath cool. His voice was hoarse and hollow, and he spoke with difficulty. His mind, however, seemed to be clear.

Feeling great interest for the patient, I requested Dr. Thaxter of Dorchester, and Dr. Fisher of Boston, to see the patient with me. They both pronounced the disease to be a case of malignant cholera. The usual remedies in like cases were resorted to, but with no effect. I remained with my patient during the night. The spasms continued to increase, and the surface of the patient to become colder. The sickness of the stomach continued for some time ; but no evacuation either from the stomach or bowels took place after 12 o'clock, nor was there any urine passed after my arrival. The face, neck, arms and legs, in the course of the night became blue ; and as the spasms increased, the hands and feet were drawn up and inwards, and the fingers and toes became separated from and bent upon each other. In consequence of the external heat which was applied, the surface gradually became warm, but no pulse in the extremities could be discovered distinctly. The warmth of the body did not continue long, and soon the whole surface was covered by a profuse cold sweat. The skin of the hands and feet presented a wrinkled appearance, and the nails almost a black color. The eyes were now rolled up, and the cornea seemed to be covered with a thin layer of serum or some glutinous secretion.

This state of things continued until 8 o'clock in the morning, when the poor man expired, fifteen hours after the attack. The spasms continued to take place in the different parts of the body, and particularly in the extremities, for an hour after death ; and by pinching or striking the flexor muscles of the arms, the hands and fingers would move and cause the hand to turn considerably.

An examination of the body was made at 11 o'clock, three hours after death, in the presence of Dr. Fisher of Boston, and Drs. Thaxter, Mulliken and Spooner of Dorchester. The body at this time had lost a good deal of its blue color ; but slight spasmodic movements were observed to take place on pinching the muscles, and these became knotted and hard when force was applied. The fingers and toes were bent in and corrugated, and the nails were blue. On opening the thorax, the lungs were found collapsed, but were healthy. The heart was of the natural size, and healthy. The right cavities were empty and flaccid ; the left ventricle contained a little black but uncoagulated blood. The blood in the aorta was very thick and black. On examining the abdomen, we found the liver healthy and the gallbladder distended with bile, which, however, was much thicker and of a blacker color than natural. The external appearance of the stomach and intestines, natural. The stomach and bowels were moderately distended by a thin fluid and by gas. On opening these organs we found them to contain a very large quantity of fluid resembling rice water, and similar to that which the patient had vomited and passed from the bowels. In the stomach the fluid was rather thicker than in the intestines. In the large intestines it was quite thin. The mucous coat of the stomach and of the whole canal was thickly covered with a whitish matter, which when scraped from the

membrane by the scalpel resembled almost exactly the paste which is used by paper hangers. There was no fæcal matter whatever in the bowels, nor any appearance of bile. No traces of inflammation were discovered in these organs ; but a portion of the stomach near the cardia was more red than natural, and of a deeper color than the other portion of the organ. The same red color of the membrane was observed in the small intestines, just below the entrance of the gall duct, and in one or more spots in the large intestines. The bladder was firmly contracted, and contained about a teaspoonful of milk-like fluid.

From the symptoms and the post-mortem appearances which this case presented, you will, I think, readily believe with me that it was a case of malignant or spasmodic cholera. It was the first one which I had seen; and as it presented symptoms in many respects unlike any which I had witnessed, I was desirous of visiting other cases in order to see if they corresponded with the one which had occurred in my practice. On the very evening of the day on which my patient died, I was informed by Drs. Fisher and Perry that cases could then be seen in the Tremont Hospital, and in Broad Street. These cases I visited, and found that the symptoms which they exhibited were similar to those which had existed in the one at Dorchester. I think I may say, however, that in no one of the subjects which I visited in Boston, were the spasms, the sufferings, and the blue appearance of the surface, so strongly marked as in the case of Mr. Willis.

In searching for a cause of the disease which so suddenly destroyed Mr. W., I learned the following facts. He was an industrious man. He had long been more or less troubled with a chronic diarrhœa, which became more urgent for a week or ten days previous to the fatal attack ; and for two days preceding the collapse, it was very troublesome. He resided on the banks of the Neponset River, in a comfortable house. In the cellar, however, there was usually more or less water, which issued from a well or spring which was situated at one corner. He seldom left home, and for more than three months previous to his death he had not left the place. He had never seen or been near a case of the cholera. Certainly no case had occurred in this region before, nor has any occurred since, so far as I have learned. I should observe, however, that two of the inmates of the house, one of which was in Mr. Willis's family, were troubled with diarrhœa and vomiting on the day of, and on the day after, the death of Mr. Willis ; which, however, yielded readily to medicine and to diet.

The existence of this case, I think, has some bearing upon the subject of contagion ; and it is for this reason, more than for any other, that I have troubled you with the above account of it. It is entirely an isolated case—traceable to no other, and giving rise to no other.

Yours, &c.

JONATHAN WARE.

Milton, November 20, 1832.

SCIRRHOUS PYLORUS, WITH STRICTURE OF THE RECTUM.

Case of Scirrhus and Ulceration of the Pylorus, with Stricture of the Rectum. By HORACE A. BARROWS, M.D. of Leeds, Maine.

[Communicated for the Boston Medical and Surgical Journal.]

ISAAC FREEMAN, aged 64, had been troubled with asthma for many years ; sometimes amounting to a severe and debilitating cough, and again abating so as to leave the lungs almost free from complaint. Six years ago he used ardent spirits habitually and freely ; and till within two years was quite corpulent, weighing about 200 lb. From 1826 he began to suffer somewhat from dyspepsia ; frequent irregularity of the bowels ; occasionally costiveness, and again a troublesome looseness. He got along comfortably, however, enjoying tolerable health except the severe asthmatic attacks, and retained his flesh till 1830, when he began to suffer more severely from dyspeptic symptoms, and consequent gradual emaciation. During this year his symptoms generally were those of moderate chronic gastritis. The morbid symptoms had now become so habitual as to afford him but short intervals of exemption from some species of suffering. In 1831 there was no material alteration or diversity of his symptoms, but a gradual aggravation of the whole. In the winter and first part of the spring of the present year, he suffered severely from *asthma* ; but in April the asthmatic attacks left him entirely, and were never renewed. There appeared to be a complete *metastasis* of disease from the chest to the abdomen ; or rather, the amount of disease which had for many years existed in the thoracic viscera, seemed to be most effectually transferred to the abdomen, and added to the derangements there existing, by which addition they were increased in a tenfold proportion. From this time everything morbid seemed to centre in the organs of digestion, and were followed by a total derangement of their varied functions.

The habitual and extreme constipation now became one of the most formidable symptoms ; to alleviate which, required the most drastic cathartics, or the most stimulating injections—milder means and methods proving wholly inefficient, although thoroughly tried per *orem* et per *anum*. The nausea, vomiting, flatulence, acidity of the *primæ viæ*, 'growing at the stomach,' colic pains, occasional fainting, &c. would generally admit of temporary alleviation by the prompt application of remedies, but no permanent benefit followed. He continued to ride out till August, when he took his room and soon afterwards his bed ; his case now becoming more alarming, required constant medical attendance.

About this time the tumefaction at the pylorus becoming more apparent, enabled the patient himself to form the following prognosis respecting his case, viz. 'that there existed in his alimentary canal a living animal,' whether frog, toad, serpent, or some other vile reptile, he was not able to determine ; but that *some* 'vile beast' thus existed he was confident, and this confidence increased with the progress of the disease. Consultations were had repeatedly, but there was no amendment from the varied prescriptions. The disease progressed steadily to a fatal crisis, and on the 12th of November he expired.

For a fortnight previous to his death he took but trifling nourishment—some sweetened water, cider and water, &c. These liquids could be retained but a very few minutes, sometimes were rejected immediately. His thirst was extreme ; would drink from three to six gallons daily.

SECTIO CADAVERIS. *Thorax.* The lungs were, upon the *left* side, perfectly healthy and natural ; upon the *right* side, universally adherent to the pleura ; otherwise natural. Heart natural, except an unusual flabbiness. *Abdomen.* Peritoneum natural. Liver very large, but healthy. Gallbladder much enlarged and somewhat diseased. Spleen and pancreas free from indurations. *Stomach.* Cardiac portion healthy and natural. Pylorus completely scirrhus, with ulceration upon the upper and anterior surface. This scirrhus enlargement was very extensive, involving not only the whole pyloric orifice, but a considerable part of the pyloric extremity of the stomach. This tumor, in appearance, feel and texture, was precisely similar to incipient cancerous tumors of the mammary glands. The intestines were healthy and natural as far as the sigmoid flexure of the colon, immediately below which was found a stricture of three inches in extent, the intestine being contracted to one third its diameter. Beyond this, the intestine was natural till within four inches of the anus, where another similar stricture commenced, and continued through the remainder of the rectum.

December 3, 1832.

INFLUENCE OF OCCUPATION ON HEALTH.—NO. IV.

[Communicated for the Boston Medical and Surgical Journal.]

CLASS IV.—*Professions which require an undue or excessive use of the vocal organs.* The employments to be ranked under this head, include a wide range, not much resembling each other except in the single peculiarity now alluded to ; for the tongue subserves so great a variety of uses, that some among them will be found to claim but a remote relationship. In fact, to this class may be referred orators generally, whether legislators, barristers, auctioneers, theatrical performers, or, last, not least, the class of *criers*, whose exertions, if not so unremitting, are neither less arduous nor less useful, and to whom those slothful citizens, who would fain pass their mornings in sleep, are so often indebted for an early call. These occupations all require a louder tone of voice than that of conversation, and most of them a continued exertion for several hours. They are generally regarded as healthy ; and I am not aware that injurious consequences often arise simply from the employment of the voice in these uses, independently of other causes of disease. It might be supposed that in the class of *criers*, in whom this exertion is complicated with exposure to severe cold, the danger from this source would be increased. It does not appear, however, that this is the case ; and we find many persons continue this occupation to an advanced age, without experiencing any trouble from this cause.

Of occupations affecting the vocal organs, independent of speaking, it will be sufficient to mention singing and playing on wind instruments. These are both attended with more danger. Singing, if practised to

excess, and especially if commenced too early in life, is very likely to impair and exhaust the powers of the voice ; so that singers by profession are very frequently obliged to relinquish their employment, or to continue in the mortifying consciousness of diminished powers. When there exists any previous tendency to disease of the lungs, the evil is materially increased, and the latent seeds of the malady are almost sure to be called into activity by indulgence in this use of the vocal powers.

Playing on wind instruments, when pursued as a profession, can hardly be considered as favorable to health. The direct operation on the lungs, which is sufficiently detrimental, is favored by late hours and exposure to night air, and vicissitudes of temperature. It is an employment to be pursued with much caution, and should if possible be abandoned when any evil effects are perceived to be induced.

CLASS V.—*Professions which require great exertions of some one of the senses.* There are a few professions which may prove injurious by requiring an undue exertion of the organs of vision ; such are those of engravers, watchmakers, and jewellers, who are obliged to look at small objects very attentively, and to make use of magnifying lenses to assist the sight. The kind of evil arising from this source may readily be imagined. They are principally inflammation and weakness of the organ, and may render necessary an occasional suspension of the employment. A less evil, but a real one, is the altered focus of convenient vision and the diminished power of the eye to adapt itself to objects at different distances. In a perfectly healthy state of the organ, it is able by the action of its muscles so to alter its focus as to obtain perfect vision, both of near and distant objects. This power, like others, depends for improvement on exercise ; and if the eye be directed solely to objects within a few inches of itself, those muscles which tend to increase its convexity being alone brought into action, this power is gradually increased, while the other is as regularly diminished. The influence of habit on the focus of vision is well exemplified in the case of sailors, who acquire the power of distinctly discerning objects at a distance at which they are totally invisible to him who has passed his life on terra firma ; and, on the contrary, in the description of trades of which I am now speaking, the eye acquires a magnifying power for near objects, while those at a distance become invisible. The remedy is of course to be sought in occasional relaxation : but the evil is one of those few which are remedied by time, independently of the removal of its cause. In old age the muscles are relaxed, and the ball of the eye, rendered less convex, becomes again fitted for distant vision.

Apart from the effect produced by examining minute objects, there are occupations which simply make a demand on the eye for long continued and intense exertion, where the objects are not too small for distinct vision, and the use of a lens is never required. In setting types, the eye is severely tasked by the long continuance of the exertion, though not greater in itself than that of ordinary reading. Writing at a desk as an occupation, may be referred to this head. These employments are not often injurious to vision ; and when they are found so, the remedy is to be sought in the removal of the cause.

Another source of injury to the eyes, distinct from either of the two last, is that arising from the reflection of light from bright and polished surfaces. In composition with new type, and in examining the face of stereotype plates, the eyes are subjected to annoyance from this cause. Many of the workmen engaged in these and similar processes, attempt to remedy the evil by a shade worn upon the head. This is a good defence against the direct light thrown upon the eyes from an opposite window or lamp; but the reflected light from a surface toward which the eyes are directed, is not avoided by its use. If this is the object intended to be attained, the color should be a dark green and not white. All these expedients, however, are open to the objection of keeping the eyes too warm, and rendering them more susceptible to external agency. If no inconvenience is experienced without their use, they had better be dispensed with. As a general tonic to the eye and a preventive of weakness and disease, there is none more familiar or more salutary than the use of cold water.

CLASS VI.—*Occupations which require to be pursued at unseasonable hours.* I have thought best to include in this class a few professions, not having indeed much general resemblance, and most of them sufficiently favorable to health, except in the single circumstance that they interfere with the regular hours of taking sleep. Of these some are taken up only from time to time by those who have other regular employments, with which these are not allowed seriously to interfere. Such is the case with watchmen, whose occasional services in this department are not calculated to produce any material influence on the constitution. Others form distinct departments of certain trades, as in printing; some branches of which, as the printing of daily newspapers, requires, as before stated, a large proportion of the labor to be performed at night. While this class are engaged in furnishing the earliest food for the mind, another are equally occupied in preparing for the first cravings of the appetite; and the breakfast table which is furnished forth by their united assistance, has perhaps cost a sleepless night to a score of artisans. There are others whose occupations equally oblige them to turn night into day; as the drivers of public coaches on certain portions of the route—and likewise workmen in foundries and glasshouses, in which the artificial temperature which is required must be maintained for a certain time without intermission.

In employments of this kind, the essential condition for the maintenance of health seems to be to guard against intemperance and cold, and neither to commence the occupation too early nor continue it too long without interruption. It has been said, indeed, that it was indifferent at what hour sleep was taken, so that a sufficient proportion of time be devoted to it. This admits of considerable doubt; but it is certain that in adults, where no other cause of disease is superadded to that now mentioned, the mere circumstance of late hours is not adequate to produce any obvious physical effect. To the young, the injury arising from this cause is much more considerable. To them a greater amount of sleep is necessary; and a certain regularity in hours appears to be essential to the due development of their physical powers. I cannot believe that in

children the health and vigor can be permanently maintained, if the hours destined for rest are regularly and constantly made a period of labor.

But the worst effect of night labor, after all, is its moral influence. It tends to unsettle the regularity of the habits, tempts men to neglect their homes and their families, and thus, unless the tendency is guarded against and resisted, may lead indirectly to dissipation and vice. There is most danger, however, of this effect being produced, when a branch of labor, which is continued day and night for a time, is then intermitted for a considerable interval. Such is the case with the blowing in some manufactories of glass : the heat for this purpose being maintained for such period only as corresponds with the labor required in the other departments. The intervals are consequently passed in idleness, which too often induces vicious and injurious indulgence.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, DECEMBER 19, 1832.

THE RESURRECTIONISTS.

It has been our uniform belief that no possible method could be devised for rendering secure the sacred mansions of the dead, but that which was recently adopted by the Legislature of Massachusetts, and soon after by the Parliament of Great Britain. In both countries the remedy has been effectual. By abolishing the office of the resurrectionist, it rids the community of the whole band of speculators, from whom alone violation of the grave could be apprehended ; the remains of mortality that rest in the earth, repose there in security ; and the minds of surviving friends are no longer harassed by the fears that, in times past, added so much to the poignancy of grief at the death of a relative or friend. Such fears were well grounded ; they were rational, and it is therefore well that they are hushed. No man who possesses anything of a philosophical mind, would object that his body, after death, should subserve the purposes of science and of humanity ; but it is quite a different thing to contemplate one's mortal part deposited as a temptation to crime, and made an article of speculation. The apprehensions therefore that grew out of the former state of the law, respecting dissection, are, in more than one view of the subject, entirely put at rest. The grave is effectually protected, the means of anatomical knowledge supplied, and the only circumstance attending dissection that could disturb the dying or annoy his friends, necessarily dispensed with.

The following notice in an English Journal illustrates one effect of the late law on this subject, in England.

Some of those desperate men who heretofore have lived by the plunder of the grave, have been endeavoring, in various ways, to annoy and dis-

turb the anatomical teachers in the metropolis. In some instances they have endeavored to create disturbance, with a view of extorting money ; in others, they have tried to obtain employment at their old occupation, offering to furnish 'subjects' for two pounds each, instead of twelve, the average price of last year. Thinking the temptation would prove too strong to be resisted, a party of them last week went one night to several schools with two bodies, offering them for anything or nothing : at last they pressed one gentleman for heaven's sake to take the bodies, were it only to bury them, for they were fearful of being detected, as no one would give them admission. We can confidently state, that the determination peremptorily to decline all connection with these men, has not been deviated from in a single instance, and thus the public has been the first to gain by the new act ; for the temptation to rob the grave ceases with the possibility of disposing of the plunder, and thus may the friends of the deceased feel assured that their '*requiescat in pace*' will not be in vain—that hereafter the grave will, indeed, be sacred.

On the Importance of the Nitrate of Silver in Surgery.—We are apt to be impressed, says a writer in the London Lancet, by cases which occur in our own families ; and such a case has forcibly brought to my mind, during the past week, how much the profession of surgery owes to Mr. Higginbottom for his Treatise on the Nitrate of Silver.

My cook wounded the back of the hand, over the tendon leading to the middle finger, very severely, by its being caught by a hook used to suspend meat in the larder. Whether this hook was merely blunt and rusted, or whether it was poisoned by animal matter, I do not pretend to say : but more frightful consequences I never beheld. In four hours the back of the hand was excessively swelled and painful ; the back part of the middle and third finger was affected by extreme numb pain, and pain and redness extended up the arm.

I gave an emetic—calomel and senna. I applied the nitrate of silver deeply in the wound, and so as to produce a complete eschar of the skin, all over the painful, red, and swollen parts. The effect was magical. In two days there was no dream of danger.

I have not thought it necessary to say more on this case, my object being only to draw the attention of the profession to Mr. Higginbottom's work, in which so many similar cases are fully detailed. I cannot refrain from expressing my opinion on that work—viz. that it constitutes the most valuable addition recently made to surgery. It should be in the hands of every student.

P. S.—The effects of the nitrate of silver are surely unaccountable. The middle joint of the middle finger was swollen and tender, from a wrench in getting out of a gig. It had been stationary for a month. The part was involved in a black eschar made by the nitrate of silver. The swelling and tenderness subsided. Before the eschar peeled off the part was well !

Comparative Productiveness of certain Vegetables.—A spot of little more than a thousand square feet, will contain from twenty to forty banana plants. A cluster of bananas, produced on a single plant, often contains from one hundred and sixty to one hundred and eighty fruits, and weighs from seventy to eighty pounds. But on reckoning the weight of a clus-

ter only at forty pounds, such a plantation would produce more than four thousand pounds of nutritive substance. M. Humboldt calculates, that as thirty-three pounds of wheat, and ninety-nine pounds of potatoes, require the same space as that in which four thousand pounds of bananas are grown, the produce of bananas is, consequently, to that of wheat as 133, and to that of potatoes 44.1.—*Penny Magazine*.

Increased Population of Austria.—The number of births in Austria during the years 1828-29-30, amounted to 2,275,532, and the deaths to 1,928,434; so that during the three years above mentioned, the increase in the population was 347,098. The greatest increase took place in the maritime provinces, and in Dalmatia, Bohemia, Moravia. On the other hand, in Lombardy, Styria, Venice, and Carinthia, there has been no change.—*Gazette Médicale*.

Arresting Hæmorrhage.—Dr. Arentz, of Norway, recommends nitric acid as the most powerful means of arresting hæmorrhage. In bleeding from a vessel too deeply seated to be easily accessible, or in false aneurism, he pours eight or ten drops of nitric acid into the wound.—*Casper Critisches Repertor*.

Wine from Potatoes.—M. Jacob, an old army officer, having an estate at Forges on the Meuse, has occupied himself in endeavoring to make wine from potatoes; and, after many ingenious experiments, has at length obtained a liquor like Muscadell. He confidently anticipates producing other varieties, and constituting a new and important article of commerce.

Whole number of deaths in Boston for the week ending Dec. 15, 33. Males, 21—Females, 12.

Of infantile, 3—cholera malignant, 2—dropsy, 3—consumption, 1—hooping cough, 1—inflammation of the lungs, 2—old age, 1—unknown, 1—lung fever, 5—sudden, 1—inflammation in the bowels, 1—scarlet fever, 1—disease of the heart, 2—atrophy, 1—croup, 1—typhous fever, 1—suicide, 1—dropsy on the brain, 1.

ADVERTISEMENTS.

MEDICAL SCHOOL OF MAINE.

THE MEDICAL LECTURES at BOWDOIN COLLEGE will commence on MONDAY, the 18th day of February, 1833.

Theory and Practice of Physic, by JOHN DELAMATER, M.D.

Anatomy and Surgery, by REUBEN D. MUSSEY, M.D., Professor at Dartmouth College.

Obstetrics and Medical Jurisprudence, by JAMES MCKEEN, M.D.

Chemistry and Materia Medica, by PARKER CLEAVELAND, M.D.

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The amount of fees for admission to all the Lectures, is \$50. Graduating fee, including diploma, \$10. There is no Matriculating nor Library fee. The Lectures continue three months.

Degrees are conferred at the close of the Lecture term in May, and at the following Commencement of the College in September.

Boarding may be obtained in the Commons Hall at a very reasonable price.

P. CLEAVELAND, Secretary.

Brunswick, October 8, 1832.

Oct. 31. eop5t.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VII.] WEDNESDAY, DECEMBER 26, 1832. [NO. 20.

FACTS RELATING TO HYDROPHOBIA.

Extent, Ease of Transmission, Dangers of Exposure, Time during which the Virus lurks in the System, &c.

IF hydrophobia should ever become as frequent in the United States, as it has been in some countries, it would be a subject of regret that we have no regular statistics of the disease. We have statistics of other diseases, as well as of vice and crime. The labor of collecting them is more than compensated by the diminution of suffering which their publicity occasions. The present is deemed a favorable time for inviting attention to hydrophobia, as it is believed that the disease is more prevalent in the country than at any former period of its history. During the last year especially, the cases have been frequent ; and there is reason to believe, that with more knowledge of the disease, and of the dangers of exposure, some, at least, of the many fatal terminations which have occurred, might have been avoided.

‘ A table, containing a statement of the number of deaths by hydrophobia, in the different parts of the Prussian monarchy, was published in Hufeland’s Journal for March, 1824. From this table, it appears that the deaths in ten years amounted to one thousand six hundred and sixty-six.

Years.	Deaths.	Years.	Deaths.
1810	104	1815	79
1811	117	1816	201
1812	101	1817	228
1813	85	1818	268
1814	127	1819	356

‘ The deaths occurred more frequently in some provinces than in others. The greatest number mentioned in one province is two hundred and twenty-eight. In several provinces, the cases were very rare, or totally absent. Dr. Hufeland accounts for this great diversity, by remarking that the provinces in which it is frequent are contiguous to the forests containing wolves, as those of Poland, Prussia, and the Ardennes.’*

* United States Literary Gazette.

This table is cited, not only as a specimen of useful research, but as furnishing palpable evidence of the gradual increase of the disease, in a single country, in a period of ten years; the deaths by it being two hundred and fifty-two more in the tenth year, than in the first of the series. It also suggests that the disease continually finds victims to prey upon, among animals which roam in the forests. In this country, farmers have frequently destroyed foxes which fearlessly approached them in open day, without, perhaps, suspecting that they were rabid. From this species of animal, many dogs unquestionably derive the disease, and transmit it to others, and they to other domestic animals, and to human beings. From the fact that the poison is transmissible from one species of animals to another, and from animals to human beings, it appears highly probable that it may be transmitted from one human being to another. Man, then, of all the animal creation, is most exposed to this fearful malady. He alone is endowed with reason to ascertain its nature, and use the means of self-preservation. To contribute, in some degree, to this object, is all that this article attempts.

The following cases, it is believed, are well authenticated. They are quoted with names, dates and references, so that if any error exists it may be easily discovered.

1. Hydrophobia, from the hair of a rabid animal. Time of the virus lurking, eight or ten weeks.

A young man, named Morehead, suddenly expired at Cincinnati, on the 3d of May, 1831. It is stated that all the usual characteristics of the disease were manifested during his short illness, and that a subsequent examination of the body satisfied the four physicians who attended him, that the case was precisely such an one as is produced by the bite of a mad dog; although it was ascertained that he had never been bitten by one. He was a tanner by trade. As several domestic animals had died of hydrophobia during the winter, it is supposed that one of them, which had besmeared its own hair with saliva, had been skinned, and its hide sent to the tan yard, where the poison might have been imparted to those who handled it. The opinion of professional gentlemen is, that the poison, applied to the sound skin, cannot excite the disease; but the victim, in this instance, had a burn on one of his fingers, and the sore had a scab on it at the time of his death.*

2. Hydrophobia, from giving medicine to a rabid animal. Time of the virus lurking, eight or ten months.

Mr. David Rock, of Bedford, Pa., died of hydrophobia, January 1, 1832. Eight or ten months previous to his death, he attempted to administer medicine to a sick heifer, which subsequently proved to have been mad. In the act of giving the medicine, he wounded one of his fingers, and thereby is supposed to have caught the infection which resulted in his death.†

3. Hydrophobia, from the bite of a mad dog. Time of the virus lurking, about five weeks.

The subject was Mr. Street, who resided near Sharon, Hamilton County, Ohio. Near the first of June, 1831, he observed a dog in the

* New York Observer, June 18, 1831.

† Philadelphia Saturday Evening Post, January 7, 1832.

stye, biting his swine. In attempting to drive him out, the dog flew at Mr. S. and bit him severely. Nine days after, one of the swine died in a rabid state. Nearly thirty-five days after, on retiring to bed, Mr. S. complained of being unwell. The succeeding morning, on putting his hands into water, for the purpose of washing, he was seized with violent spasms, and forced to recoil several paces. After repeated trials, he succeeded in washing himself.

He is represented as having been, from this moment, fully conscious of his danger; he was a pious man, and was supported by religion in his extremest suffering, and in the hour of dissolution.

‘The strange spectacle was here presented to the living, of a man in his full strength, who, while walking about the room, conversing with his friends, and exhorting them to prepare for death, and yet perfectly conscious that he must die in a few hours, was foaming at the mouth, and exhibiting, by the convulsions of his whole frame, the horrible distortion of his countenance, and the unnatural expression of his eyes, which seemed ready to burst from their sockets, that a terrible poison was drinking up his spirits, the progress of whose destructive energy no power on earth was able to resist.’*

4. Hydrophobia, from the bite of a mad dog. Time of the virus lurking, fifty-four days.

The subject was a little girl, named Johnson, two and half years old. On the 20th of April, a small dog entered the yard, No. 138 Christie Street, New York, where she was at play, and lacerated her nose severely. The child soon recovered of her wound, and continued well to the 13th of June, when she became fretful, and complained of pain in the head and stomach. The mother prepared an infusion of senna, and when she attempted to administer it the child would shudder and become convulsed. The first circumstance that attracted the notice of the mother, was the peculiar actions of the child when she drank, for she was thirsty, and asked for water; but when she swallowed the water, she would choke and spit it out.

On the succeeding day, Dr. Mead, of Cliff Street, from whom the particulars were derived, was called to attend the child. ‘He found her lying quietly on her bed, cheerful and intelligent, for the child was remarkably sprightly for her age, and seemed pleased with the idea of being made well. She said she had no pain, except a little in her stomach. She allowed her person to be examined freely; but when the nose was touched, she would recoil with shuddering, and when it was pressed she would thrust out her tongue with a shriek, and catch her breath as if suffocated. This was not incidental, for it was tried several times with the same result. The cicatrix of the wound appeared perfectly well, and there was no appearance of disease, or discoloration of the part. She was asked to drink some water. She seemed thirsty, and readily assented. A cup was brought, and she rose in bed, grasped it with both hands, and filled her mouth, but in an instant she dashed the cup from her, and seemed to spit or blow the water from her mouth, with a force and sound as if it were ejected from a heated crucible, and fell upon the bed in

* New York Observer, July 30, 1831.

horrible convulsions. In a few moments she was quiet and composed again. These experiments were forbidden, as they added greatly to the sufferings of the child. Several attempts were made to administer medicine, but unsuccessfully ; for every effort to swallow even the smallest quantity, would bring on a spasm and a distressing constriction of the throat, which would eject it from her mouth. The dread of water continued to increase, to such a degree that if a person approached her with a tumbler of water, it would bring on a recurrence of the paroxysms. The spasms occurred spontaneously with increased power and frequency, until she exhibited all the horrors of this fearful malady. The eyes were wild and protruded ; there was gnashing of the teeth until the tongue became lacerated ; with frequent spitting and foaming at the mouth ; and retching, which was peculiar. It returned at regular intervals of a few moments, attended with but one effort, as if the stomach were suddenly affected by a spasm, and forcibly expelled through the constricted pharynx a little frothy mucus. Then again returned the horrible convulsions and shrieks not to be described, and dreadful to behold, until she became gradually exhausted, and expired forty hours after the invasion of the disease, and fifty-seven days after the infliction of the wound. Several physicians saw the child, and no doubt was left on their minds as to the nature of the disease.*

Such are some of the details in relation to this fearful disease. The list might be greatly extended, but these are deemed sufficient to render highly probable the following conclusions respecting it.

Animals known to have been exposed, or slightly suspected of the disease, ought to be immediately confined. On the decisive appearance of the disease, they ought to be immediately destroyed. There is an instinctive dread of animals infected with the disease, as there is of certain poisonous reptiles. Numbers, however, delight in exhibiting a useless bravery, in approaching them without sure means of defence at hand. It can never be safe in any way to trifle with a poison so deadly in its effects, and at the same time so easily conveyed into the system. One moment the rabid animal may be quiescent, and apparently harmless, and the next moved by convulsions, and a strong propensity to bite ; inflicting a death wound on the unsuspecting being who shall be within its reach.†

It appears evident that the transmissible poison is contained in the mucus or saliva of the diseased animal, and that the disease may be produced by almost any minute portion of this mucus or saliva, if it only come in contact with the fluids of the system. The poison also appears to be permanent, and active, at least for a considerable time after the death of the diseased animal.‡ No doubt therefore need remain, as to the active

* *Journal of Commerce*, June 18, 1831. 2d page, 1st col. top.

† A dog which had imparted the disease to several domestic animals, afterwards approached his master, licked his hand, and suffered himself to be caressed, without offering to injure him. He suddenly turned from his master, to a little child standing near, and in the act of biting her was prevented, by a severe blow on the neck, from the child's father, who was anxiously watching the motions of the dog.

‡ In the case of reptiles, this fact is of general notoriety, as persons who destroy them always sink the head to a great depth in the earth. The poison of a dead reptile, applied to the outer bark of a green stick filled with sap, will produce no action. If a hole be made through the bark, and the poison be placed in contact with the sap, its rapid diffusion may be detected by the eye, since it will raise the bark as it proceeds, and render visible its actual progress for some distance from the place of contact.

nature of the poison, or the ease with which it is transmitted. In the case of animals diseased or dead, it is not safe for persons having fractured skin, or open wounds, to approach or handle them, either for the purpose of administering medicine or for the operation of skinning. It is better in all cases to sacrifice the small value of the skin, than to endanger life in attempting to save it. Nor can the hides of such animals be safely handled for the purpose of dressing. It is unsafe for persons free from wounds to approach such animals, just in proportion as they are in danger of being wounded, or in any way liable to take the poison.

If substantially the same poison rages in beasts of the forest, in domestic animals, and in human beings, as is evident from the sameness of its effects—if it is transmissible from one species of animals to another, and from them to human beings, as facts clearly prove; then it is reasonable to conclude that it may be transmitted from one human being to another. On this ground, the greatest caution is required of those who have the care of the victims of this disease. It is imprudent for persons having uncovered wounds of any description, to attend on the human victim afflicted with it. The poisonous mucus or saliva may be, and often, if not always, is thrown to every part of the room in which he is confined. It may strike a small uncovered wound, and be as effectually transmitted as from the tooth of a fox, a wolf, or a dog. The utmost care is requisite on the part of attendants, not only to avoid bites, but to prevent the ingress of the virus, in any quantity, through an aperture of the skin.

The time during which the virus lurks in the human system, has been stated not to be short of ten days, nor to exceed nineteen months. This statement was the result of an observation of a given number of cases. Facts, however, are not wanting to prove that it acts short of the least term, and lurks beyond the greatest. The time of lurking may depend on the stage of the disease in the animal or human being from whom the poison is transmitted; it being reasonable to conclude, that if taken in the earlier stages of the disease it will be less likely to operate soon than if taken when the disease has reached its maximum, or in the later stages. It may also depend on the *quantity* as well as on the *power* of the virus transmitted.* Both these circumstances may, in different individuals, vary the symptoms of the disease as well as the time of its appearance. Difference in age, constitution, habits of life, and state of health, at the time of exposure, may cause a difference in the symptoms of the disease, and in the time intervening between exposure and its development, and between its development and fatal termination. Facts indicate the difference; some falling under its power in a very short period, and others enduring it longer. In some the disease appears soon; and in others, years elapse before its development.

As a practical rule, in relation to this strange and hitherto uncontrollable poison, it is deemed strictly philosophical to fix the time of its

* In reference to the four cases of supposed hydrophobia, stated in Part I. [see last Journal] of this account, it is an ascertained fact, that the person bitten by the dog, was bitten on the first day of the appearance of the disease in the dog; that the three who were bitten by this person, were all bitten in the earlier stages of his disease, and during the first manifestation of his disposition to bite; and that the wound, inflicted on the one who died first, was more severe than on either of the others, and the wound on the one who died last the slightest of the three.

lurking, in every instance, by the known facts which mark its development; and altogether unphilosophical, when it appears with marked symptoms, to deny its existence, because it appears long after exposure. To deny the possibility of its lurking beyond a short period, has an evident tendency to multiply the dangers of exposure, preclude the explanation of facts which occur, and increase the chances of malpractice. It may appear very improbable, that so active a poison should lurk in the system for years; but since its development is affected by so many circumstances, facts may render it morally certain that it does remain inactive in the system for a period of years. Facts constitute a firmer basis of belief than any theory, however nicely constructed, and however fully supported by that kind of evidence on which all theories depend. Is it the greater improbability, that the poison should remain long inactive in the system; or that the disease should appear with marked symptoms, and be wholly separated from the only known exciting cause? It invites consideration, whether a preconceived opinion, that the poison does never remain long inactive in the system, has not caused many genuine cases of this disease to be passed over in silence; inquiries respecting the cause of others, which might have proved successful, to be suppressed; and others still to be designated spontaneous hydrophobia. *Causa latet*, is a rule of safe application to effects witnessed in one connexion, without a circumstantial knowledge of the cause, with which, in other connexions, they have been invariably associated.

It may not be difficult to trace the close analogy between these views of hydrophobia, and that scornful defiance of rules and limits which characterizes almost all other inveterate diseases; and from that analogy to infer their probable correctness. If they err, it is on the safe side. A disease of such power and terror, which has rarely if ever been cured, should, if possible, be avoided. The more secret and undefined the modes of transmitting the poison, the more unceasing and vigilant should be our endeavors to hedge up every possible way of access to it.

In thus adverting to the secondary causes of this disease, in glancing at the wide field on which they may act, and in attempting to set up beacons to warn the unwary to stop short at the point at which danger commences, we do not forget that unseen Power, on whose will the action of secondary causes depends, and by whom their every action is hastened or suspended at pleasure; nor our obligations of gratitude, that in limits so circumscribed as those which constitute the boundaries of human knowledge, we may arrive at fixed truths, which, by disclosing hidden dangers, pointing out the means of avoiding them, and inspiring us with salutary caution, shall ward off the fatal dart that was covertly aimed at our life—prevent, in many instances, the exquisite sufferings of our fellow beings, and impose, at least, partial restraints on the progress of one of the direst maladies, before whose energy man is ever forced to bow in death.—*Amer. Jour. of Science*.

INFLUENCE OF OCCUPATION ON HEALTH.—NO. V.

[Communicated for the Boston Medical and Surgical Journal.]

I COME now to consider a division of trades which expose to the operation of some agent, capable, or generally considered so, of acting unfavorably on the human body. Most of these agents we shall find are of a subtle nature, not appearing in a solid tangible form, but eluding the senses, and recognized principally from their effects. They are enemies rather to be felt than seen. They act, for the most part, through the medium of that invisible fluid by which we are surrounded ; some being dissolved in the air, and thus altering its properties, and others being merely diffused—that is, raised into the atmosphere by their lightness, or the fineness of the particles of which they consist, and thus conveyed to the person on which they act. These agents are heat, cold, humidity or dampness, the gases produced by human respiration and combustion, the fine particles or dust of substances employed, the exhalations from dead animal or vegetable matter, metallic or universal exhalations, and other chemical agents. Of these in their order.

CLASS VII.—*Occupations exposing to extremes of temperature.* There are many occupations which require constant exposure to extreme cold ; but where this circumstance is counteracted by active exercise, it is not only not injurious, but decidedly salutary. Employments of this description have been adverted to and sufficiently considered. Of those which require exposure *without* exercise, the number is fortunately small. Among them may be mentioned the drivers of public coaches, who in our climate are sometimes obliged to remain for a considerable space of time in the open air, without the means of exercising their limbs, except partially and imperfectly. Under such circumstances, it is not surprising that instances occur of injury to limbs from frost, and occasionally of loss of life. It is, perhaps, more surprising that these accidents are so rare. The question has often attracted attention, whether the use of ardent spirit renders the body more or less sensible to cold. This may be answered in different ways. As respects the nervous sensibility, or the susceptibility to suffering from cold, this is certainly less after the use of stimulus ; and in this sense it may be said that these substances render the body less sensible to all injurious agents. But it is a very different question whether the body can best bear the continued action of cold without danger to life, with or without alcohol. Those who have heard or read the sensations described which precede freezing, will notice that there is always a disposition to sleep, and that unless this disposition is counteracted by resolution, the sleep proves to be a fatal slumber. Now it is this somnolency, or sleepiness, which the presence of alcohol in the system undoubtedly encourages ; and there can be no doubt that a person exposed to intense cold, will hold out the longest without being actually exhausted, if the system is free from excitement. This is confirmed by what we hear of sailors when wrecked on a coast in winter, and obliged to remain many hours without assistance. Those who remain sober under these circumstances, live longer than those who, to

procure themselves a momentary respite from suffering, indulge in free potations. We can no more escape the operation of a morbid agent by rendering our bodies insensible, than we can avoid danger by shutting our eyes. In both cases, the shock which prudence and presence of mind might have averted is rendered inevitable.

We shall now consider some of the occupations which expose to intense heat.

IRON FOUNDRY, which consists in fusing iron in a furnace and then passing it into moulds, requires in some of its departments an exposure to a very great degree of heat. In order to be convinced of this, it is sufficient to consider that the highest summer heat is about 95° Fahr., a degree of heat which in this climate is not often exceeded in the shade. Now iron fuses only at a temperature estimated at about 20,000; and where the casting is not large, the workman dips out the fused metal with a ladle from the furnace, and pours it into the kettle from which it is transferred to the mould. The quantity removed at each time is as large as can conveniently be managed; and this process is continued until a sufficient quantity is removed for the casting in question. In this mode it is not unusual to decant for one casting a ton of liquid iron; an operation which may perhaps require about 15 minutes. The mere muscular effort required for performing this, is by no means despicable; and when it is considered that this is exerted at the very mouth of a furnace heated to ten times the degree required for boiling water, it is obvious that it constitutes no very agreeable occupation. The temperature of the atmosphere in which the workman stands, is often as high as 130—150 degrees; scarcely any clothes can be borne, and the sweat is profuse. Yet from this extreme heat it is often scarce possible to avoid passing immediately to the temperature of the external air, which may be at or below the freezing point; and this is done by all fearlessly, without any sense of danger from the exposure. No particular precautions are used in regard to dress, either by those employed as above mentioned or by others of the workmen. At first the sudden variations of temperature are attended with some inconvenience, and give rise to catarrhs and slight rheumatic affections. In those accustomed to the employment, these effects are not produced; and so far as this circumstance is concerned, the men remain free from disease. They have not, however, the appearance of very robust health; and where the trade is carried on to a sufficient extent to afford opportunity for judging, do not appear to be very long-lived. In the moulding department, considerable dust is produced. The intense light to which the eyes are exposed, has a tendency to produce weakness of that organ. Burns from the fused metal occasionally happen, but are not frequent.

LOCAL APPLICATION OF CROTON OIL.

BY C. ROBBINS, M.D.

[For the Boston Medical and Surgical Journal.]

THE value of Croton Oil, its effects on the system when introduced into the stomach, and the peculiar circumstances and forms in which it should

be administered, are well understood by the faculty. A case of *mimosi*s recently presented itself to me, in which obstinate constipation was one of the prominent symptoms, and yet it was not a case in which the croton oil was admissible. Medicine of any considerable bulk was also inappropriate, since the irritability of the stomach was so great as to reject it *instantly*, and the patient had already reached the twentieth day since the last evacuation from the bowels. Under these circumstances I was induced to try the effect of the oil externally applied, although I had never known or heard of a case in which constipation had been overcome in this manner. One drachm of the oil was accordingly rubbed over the abdomen, but it produced no apparent effect on the bowels. Its only operation was on the skin, bringing out a very copious eruption of minute pustules, which dried away in a very few days, without producing any considerable inconvenience. These pustules were smaller than those usually excited by the antimonial ointment, and attended with less acute local inflammation or soreness. Facts of this kind should be recorded, since they may one day be turned to account in diseases requiring external irritation.

Boston, December, 1832.

Monthly Notice of New Publications.

Human Physiology ; Illustrated by numerous Engravings. By ROBLEY DUNGLISON, M.D., Professor of Physiology, &c. in the University of Virginia. 2 Vols. 8vo. Carey & Lea, Philadelphia. 1832.

DR. DUNGLISON is well known to the medical public as the author of a copious dictionary of medical terms—a work displaying great erudition, and one which, we doubt not, will take the place of all similar publications in the hands of the profession in this country. The present work, which is somewhat more attractive in its subject, affords a new proof of the author's uncommon zeal and diligence in that branch of study to which he has devoted himself. The work is a complete treatise on the various functions which subserve the life of the individual and the propagation of the species, accompanied with all the descriptive details which are necessary to the elucidation of the subject, and farther illustrated by numerous wood cuts, placed side by side with the letter press which refers to them, and giving a concise but faithful representation of the various organs of the human body. In considering the various subjects embraced under the comprehensive title of Human Physiology, as understood in modern language, Dr. S. seems to have omitted nothing of importance that was to be found in the works of his predecessors, and has shown himself to be well acquainted with the labors of all the most distinguished physiologists of the age, both in England and on the continent of Europe. He has moreover enriched his work with much valuable information,

which has resulted from the investigations of our own philosophers, many of which had been undeservedly neglected, and allowed to remain unnoticed in those publications in which they first made their appearance. To these the author has added many valuable facts, derived from his personal observation ; so that the work may be regarded as, on the whole, the most complete treatise on Physiology we possess in our language.

When we compare the treatises on Physiology published within the last thirty years, with the standard works of the last century—the works for instance of Boerhaave and Haller—it would appear that this science, like Chemistry, had commenced almost a new existence within that comparatively brief period. Its modern history commences, it is true, rather farther back than the period referred to. Perhaps John Hunter deserves, more than any one, the credit of having given a new impulse to this science in the true direction. Since his time, though with very variable progress, Physiology has gradually been assuming its just rank as a science. The labors of Bichat in this field have reared an imperishable monument to his fame ; and his successors, emulating his zeal, have explored in every direction this vast and mysterious region of inquiry. The contrast between the text books of the science which are now in use, and those which were put into the student's hands twenty years ago, is truly astonishing. We are not obliged to look far back to remember the hopeless dullness in which we pored over the pages of Haller, translating his endless sentences and more endless paragraphs into the vernacular, with no one circumstance to relieve the toil of study, at a time when Bichat and Richerand were viewed almost in the light of dangerous innovators, and as having intruded on ground already in possession of its rightful owners. At present, thanks to the exertions of modern days, Physiology has become a delightful and attractive science, blending amusement with instruction, and inciting the man of taste by all the charms of eloquence, while it allures the philosopher by its appeals to his reason and his love of truth. To collect and digest into a system the known facts on so extensive a subject, has now become a serious labor ; but it is one which, well executed, does honor to its author, and entitles him to the respect and gratitude of his cotemporaries.

An Essay on the Ganglionic System of Nerves in the Cavity of the Cranium, and its Use. By WILLIAM INGALLS, M.D. Boston. 1832. pp. 16.

It is to be regretted that so many of those who arrive at distinction and wealth by the practice of medicine, become in advanced life indifferent to the progress of that science, to the successful cultivation of which they owe their advancement. They are too apt either to become absorbed in a routine of practice, which leaves them no time for literary exertion, or retiring on the wealth they have acquired, to become interested in

other objects, and withdraw their attention wholly from those which so strongly fixed them at an earlier period. Only a few are to be found who, after they have purchased by their labors a first immunity from toil, continue, for their love of science, exertions which cannot now be imputed to the desire of increased wealth or more extended practice, and who regard the claims which the younger members of the profession have on them for a portion of the fruits of their researches and the results of their experience. Sir Astley Cooper, by his recent labors in the department of Anatomy and Physiology, has honorably distinguished himself as one of those ardent and distinguished friends of science, and has thus made no small addition to the glory with which the brilliance of his early career had already encircled him. We are peculiarly gratified to find that the veterans of the profession among us are imitating this illustrious example. We are the more pleased with every instance of this nature, because we know that there exists among many an impression that the objects and views with which the profession is pursued here, are less elevated than those which actuate the practitioners of some other countries, and particularly of France; that while in that country there exists a real devotion to science for its own sake, we are influenced by the sordid consideration of personal interest; that we pursue it eagerly for the accumulation of wealth—and when this is satisfied, the interest of this pursuit ceases with the motive which first led to its adoption. We do not believe that there is any foundation for such a charge; and if there be not, the sooner it is rebutted by the evidence of facts the better. With these views we rejoice to find that those who have become distinguished among us, are not backward to impart to others of their acquisition, or indifferent to the advance of that noble science to which they have devoted the ardor of their youth and the strength of their manhood.

Dr. Ingalls is well known to the public as an able and skilful surgeon, in which department of the profession he has long been eminent. His zeal in the pursuit of Anatomy and Physiology, has been less generally appreciated. The present work is an evidence that these departments have received no small share of his attention, and that he has cultivated them with success. It is so brief and comprehensive as to defy analysis, but at the same time to bring it within the reach of every practitioner.

Funeral Oration : Delivered before the Citizens of Boston assembled at the Old South Church, Nov. 17, at the Burial of GASPAR SPURZHEIM, M.D.
By CHARLES FOLLEN, J.U.D., Professor of German Literature in Harvard University. Boston. 1832.

OF this Oration we have formerly spoken in general terms. It abounds in fine sentiments, and interesting personal anecdotes of Dr. Spurzheim.

These we would gladly relate, as illustrative of the high *morale* of our deceased friend ; but they must give way to the following extracts, which contain the more uniform account of his progress through life, and the feelings with which he looked forward to its close.

GASPAR SPURZHEIM was born on the 31st of December, 1775, at Longvich, a village about seven miles from the city of Treves, on the Moselle, in the lower circle of the Rhine, now under the dominion of Prussia. His father was a farmer, and in his religious persuasion, a Lutheran. Young Spurzheim received his classical education at the college of Treves ; and was destined by his friends, for the profession of Theology. In consequence of the war between Germany and France, in 1797, the students of that college were dispersed, and Spurzheim went to Vienna. Here he devoted himself to the study of medicine, and became the pupil, and afterward the associate, of Dr. Gall, who was at that time established as a physician at Vienna. * * * * *

It was at Vienna, in the year 1800, that Spurzheim first attended a private course which Dr. Gall had repeated from time to time, during the four preceding years, in order to explain to a select audience his new theory of the organs and functions of the brain. The dissection of the brain itself still remained imperfect until 1804, when Spurzheim became his associate, and undertook especially the anatomical department. From that time, in their public as well as private demonstrations of the brain, Spurzheim always made the dissections, and Gall explained them to the audience.

The great interest which was excited by these lectures at Vienna, and throughout Germany, roused the fears of that inveterate enemy of all innovations, the government of Austria. An imperial decree, which prohibited all private lectures unless by special permission, silenced the two teachers, and induced them, in 1805, to quit Vienna. They traveled together through Germany, explaining and demonstrating their physiological discoveries in the principal universities and cities ; particularly in Berlin, Leipzig, Dresden, Halle, Heidelberg and Munic. Their anatomical demonstrations excited everywhere great interest and applause. The great German anatomist and physiologist, Reil, before whom Gall and Spurzheim dissected a brain in 1805 at Halle, said to Professor Bischoff, who wrote an exposition of their doctrine, ' I have seen in the anatomical demonstrations of the brain, made by Gall, more than I thought that a man could discover in his whole life.' Their peculiar physiological doctrines on the organization of the brain being adapted to various innate qualities of the mind, found many opposers, but also some warm adherents, and gave rise to a great number of publications in which the subject was discussed.

In the year 1807, Gall and Spurzheim went to Paris, where they demonstrated their theory of the brain in the presence of Cuvier, then the chief of the anatomical department of the French Institute, and before many other distinguished men and learned societies. Meanwhile their collections of skulls, and casts of heads, had much increased, so that they were able amply to illustrate their doctrines of special parts of the head, as indicative of mental powers. Cuvier showed himself at first well disposed toward the new doctrine, and expressed his approbation of its general features. But in the year 1808, when Gall and Spurzheim delivered their memoir containing an account of their scientific labors, to the

French Institute, Cuvier was appointed to draw up the report, in which he seemed to labor to diminish as much as possible the merit which he was forced to allow to this new mode of dissection. It is said that Cuvier, whose firmness and independence was by no means commensurate with his great talents, was swayed by the haughtiness of the First Consul, who had seen with displeasure that the French Institute had awarded a prize medal to Sir H. Davy for his galvanic experiments, and 'at a levee rated the wise men of his land, for allowing themselves to be taught Chemistry by an Englishman, and Anatomy by a German.'

In Paris, Gall and Spurzheim began to publish their great work on the anatomy and physiology of the nervous system in general, and that of the brain in particular. They also continued their public lectures and demonstrations. They remained and labored together in Paris till the year 1813. In the following year Spurzheim went over to England, and gave his first public lecture in London, in the amphitheatre of Mr. Abernethy. Mr. Abernethy, though he did not give full credit to the evidence brought forward by phrenologists to prove that special parts of the brain are the organs of certain innate qualities of the mind, fully acknowledged the superiority of Dr. Spurzheim's anatomical demonstrations over every previous mode of dissecting the brain. I have been assured by a gentleman who at that time attended Mr. Abernethy's lectures, that he directed the attention of his class to Dr. Spurzheim's anatomical labors as most important discoveries. Still, the truly scientific method of establishing phrenology by anatomical demonstration, though it secured the respect of learned men, did not render it popular.

From London, Dr. Spurzheim went to Bath, Bristol, Cork, and Dublin, where also he delivered lectures. He then proceeded to Edinburgh. His desire to visit that city was increased by a very abusive article on phrenology, which had appeared in the *Edinburgh Review*, for June, 1815, concluding with the confident assertion of the writer that his statement of the doctrine of phrenology could 'leave no doubt, in the minds of honest and intelligent men, as to the real ignorance, the real hypocrisy, and the real empiricism of the author.'

Dr. Spurzheim procured one letter of introduction for that city, and but one; this was to the reputed author of the vituperating essay. He visited him, and obtained permission to dissect a brain in his presence. He succeeded in convincing some of his hearers, of the truth of the results of his researches. A second day was named. The room was crowded to overflowing. There, with the *Edinburgh Review* in one hand, and a brain in the other, he opposed fact to assertion. The writer of the article still believed the *Edinburgh Review*, but the public believed the anatomist. Dr. Spurzheim now opened a course of lectures on the anatomy and the functions of the brain, and its connection with the mind. He used to say to the Scotch, 'You are slow, but you are sure. I must remain some time with you, and then I shall leave the fruit of my labors to ripen in your hands. This is the spot from which, as from a centre, the doctrine of phrenology shall spread over Britain.'

Edinburgh, the city from which the great anathema had issued against phrenology, actually became the principal seat of it. There, in 1820, a Phrenological Society was formed, at the head of which stands Mr. G. Combe, extensively known by his interesting works; and there a *Phrenological Journal* continues to be published.

After a residence of seven months at Edinburgh, Dr. Spurzheim returned, in 1817, to London, where his doctrine had meanwhile made many

converts, and where he was made Licentiate of the Royal College of Physicians. During the three years of his residence in England, he published several works on Phrenology, particularly one under the title, *The Physiognomical System*, of which he afterwards published an abstract (*Outlines of the Physiognomical System*). He also wrote in defence of his principles, his *Examination of the Objections made in Great Britain against Phrenology*.

Dr. Spurzheim returned to Paris in 1817, where he gave lectures on the anatomy, physiology and pathology of the brain. He also devoted himself to the practice of medicine, and visited, in this capacity, several American families then residing in Paris. Still the medical profession did not seem to be his favorite occupation. At the same time he published some new works in French, and became Doctor of Medicine at the University of Paris, in 1821.

In Paris Dr. Spurzheim married a lady of great merit. She was a widow and had three daughters when he married her. Dr. Spurzheim had no children of his own. Several ladies in this city, who were introduced to Mrs. Spurzheim in Paris and in London, remember her with the highest esteem and delight. Her whole manner expressed a union of true humility, tender attachment, and conscious power, which excited at once affection and confidence. She entered fully into her husband's pursuits, and aided him by her uncommon skill in drawing. To her pencil we are indebted for a number of those excellent drawings used by Dr. Spurzheim in his lectures. But far more important to him was the aid which he derived from the unseen treasures of a true and devoted heart. It was often observed how well their characters seemed to be fitted for each other. They were both adepts in that profoundest of all sciences, and most pleasing of all the fine arts—Christian benevolence shown forth in beautiful manners. It is characteristic of Dr. Spurzheim, that one of the reasons which influenced him in the choice of his wife, was the knowledge that she had undergone great suffering, which he thought essential to the perfection of human nature. An ancient philosopher thought that no one could become a good physician, who had not himself endured many diseases. Whatever be the merits of this speculation as regards the medical profession, it is certainly true in morals—that no one can so readily perceive and deeply understand, and so successfully alleviate the sufferings of others, as he who is himself a man of sorrows and acquainted with grief. Dr. Spurzheim was devotedly attached to his wife, and he remained so after her death to the end of his own life. While he was in this country, though surrounded by many whom he had soon made his friends, he often mourned the loneliness of his situation, particularly when indisposition or fatigue made him long after those small services of domestic affection and ever watchful care, of which those who devote themselves wholly to one of the great general interests of mankind, be it the cause of religion or of science, stand in special need—that wholesome atmosphere of constant love, the absence of which seems to be felt more painfully the more unconscious we are while we inhale it. In his last sickness, he, in a mournful manner, ascribed his illness to the want of warm linen on his return from his lectures; saying, with a sigh, that if his wife had been living, it would have been before the fire ready for him. The disease of his heart he ascribed to his loss of her, saying, his pulse had intermitted ever since her death.

The death of his wife, which took place about three years since, seemed to remind him more strongly that his life and his labors belonged to all

mankind, whose vital interests he thought most effectually to promote by developing particularly the principles of education, morality, and religion, to which his studies of human nature had led him. He had visited England again in 1815, and was engaged partly in lecturing, and partly in the publication of different books. The first work he had published in England, 'The Physiognomical System,' contained several summary views of different branches of anthropology, which he now endeavored to make more generally appreciated, by extending the principal chapters, and making them separate books. In one of them, *Phrenology*, he treats of the different powers of the mind, and their cerebral organs, in general. A smaller book, *Outlines of Phrenology*, is an abstract of that work. The two principal doctrines of Phrenology, that of the brain, and that of the mind, were carried out in different works.

In his *Anatomy of the Brain*, he laid down his and Dr. Gall's investigations of the brain and the nervous system. On the other hand, the doctrine of the mind, with its practical bearings on religion and morality, is carried out in his *Philosophical Principles of Phrenology*. The same principles, in a more condensed and practical form, are set forth in his *Philosophical Catechism of the Natural Laws of Man*. The subject of education, on which he rested all his philanthropic hopes, was treated of in his *Elementary Principles of Education*, a book full of the most important information, and excellent counsel. The deranged functions of the brain is the subject of his interesting work on *Insanity*, for which his frequent visits to the Insane Hospitals afforded him a great number of important observations. All the works which Dr. Spurzheim edited after his separation from Dr. Gall in the year 1813, show a spirit of free and indefatigable inquiry. The improvement in the anatomy of the brain, was chiefly Spurzheim's work ; he also discriminated more minutely between different faculties of the mind which Gall had confounded, and he endeavored to point out their relation to the development of the brain ; he moreover brought method and order into the scattered doctrines of Phrenology.

So great was the interest excited by his lectures, on his second visit to England, that in 1826, when he delivered his course in London, 'not only the large lecture-room of the London Institution, but all the staircases, corridors, and passages leading to it, were filled with hearers.' Still, from the nature of the science itself, which requires constant, extensive, and minute study, it was to be expected that many of those who had been induced to embrace it either by the eloquence of the celebrated teacher, or by partial success in their own phrenological divinations, relaxed in their scientific pursuits ; and a number of phrenological societies, formed during the full tide of popularity, dwindled away until they wholly disappeared. Still in Edinburgh, which city Dr. Spurzheim again visited in 1828, the study of Phrenology is pursued with unabated ardor and diligence. From England Dr. Spurzheim returned to Paris, where he continued to lecture, and where he had collected a large phrenological cabinet.

In the summer of the present year, Dr. Spurzheim came to this country, where lectures on Phrenology had been delivered long before his arrival, and a Phrenological Society formed at Philadelphia. On board the ship he proved himself a friend in need to a number of poor emigrants ; many of whom being taken sick on their passage, experienced his kind and successful medical assistance. Dr. Spurzheim arrived at New York on the 6th of August, in the heat of summer, while the cholera was rag-

ing there, and immediately went on to New Haven, where he stopped a few days. A letter from one of the most eminent men of Yale College, in whose family Dr. Spurzheim spent much of his time, speaks of the 'amiable, winning simplicity of his manners, and his unpretending good sense, and good feeling.' From New Haven he came on to this city, with which he felt already familiar, through a number of Bostonians, with whom he had become acquainted in Europe. He intended to stay in this country about two years, to lecture in the principal towns, then to visit the different tribes of our Indians; and at last to return to Paris. The easy access which that city presents to so many treasures of science, and its being the place of residence of his most intimate friends, gave rise, now and then, to feelings of homesickness; which were soon merged, however, in that universal benevolence which made him consider any portion of the human family with which he happened to be connected, and to whom he could do some good, as his nearest relatives.

The time of Dr. Spurzheim's residence amongst us, is familiar to so many of my hearers, that I shall confine myself to those points which, if they be rightly improved by us, will be a lasting benefit to this community.

He delivered in Boston one course of lectures on the anatomy of the brain, principally for medical men; and two courses of popular lectures on Phrenology, one in Boston and another in Cambridge, which he had nearly completed, when death overtook him in the midst of his labors. In his anatomical demonstration of the brain, he endeavored to unfold the design of nature in the complicated structure of this organ, by tracing its gradual development from its lowest and simplest, beginning in the spinal marrow, to its continually increasing, various and harmonious ramifications. This scientific demonstration of the brain, which was made without any reference to the peculiar doctrines of Phrenology, together with his discoveries of some of the constituent parts of this organ, obtained for Dr. Spurzheim here the same high respect as an anatomist of the brain, which had been accorded to him in Europe by the eminent men in that department.

Of his lectures on Phrenology, which were attended by large numbers of our fellow-citizens, it would be vain to attempt to give an account that would in any degree satisfy those who have enjoyed the high privilege of hearing from his own living lips the results of his original and vast inquiries. Who but he, whose lips are now sealed in death, could set forth his ideas with that natural eloquence which seemed to annihilate the difference between words and things, with those accents so full of impressive earnestness, and persuasive sweetness, which made natives listen to the broken English of a foreigner with the same intense delight with which a stranger, far from home, hears the sounds of his mother tongue, and the voice of a friend.

Whole number of deaths in Boston for the week ending Dec. 21, 28. Males, 10—Females, 18.

Of hooping cough, 1—decline, 1—inflammation of the lungs, 2—fever, 1—unknown, 2—mortification, 2—typhous fever, 1—rheumatic fever, 1—throat distemper, 1—scarlet fever, 2—dropsy, 2—lung fever, 3—paralysis, 1—marasmus, 1—teething, 1—erysipelas, 1—decay of nature, 1—old age, 1—consumption, 2—dropsy on the brain, 1.

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FETID ABSCESES.

Remarks on the Fetid Abscesses which frequently form in the Neighborhood of Mucous Membranes.

MANY of the laws, which were supposed formerly to regulate and to be peculiar to the actions of living bodies, have been of late years disputed ; and physiology has called in the aid of physical science to explain a number of pathological phenomena. The course of the fluid in the different tissues has been found, in many respects, to obey the ordinary rules of chemical and mechanical agency, as is illustrated by the transmission both of liquids and of gases, through the medium of imbibition, from one structure to another, without the intervention of the circulatory or absorbent systems. The formation of many abscesses is intimately connected, according to M. Velpeau, with such a process. His attention was first excited, by observing that many collections of matter, situated in the cellular or muscular structures, and apparently the result of active phlegmonous inflammation, are filled with an offensive and fetid pus, although there is no communication between them and any carious bones, or internal viscera. Such abscesses are observed around the mouth, at the sides or in front of the larynx or trachea, at the margin of the anus, and still more often in the abdominal parietes ; in short, along the track of all organs which are covered with a mucous coat, and whose walls are more or less soft and more or less extensible. Every surgeon must have remarked the stench of many collections of matter formed in the gums, or round the mouth and anus. A few examples, however, will confirm the truth of this statement.

Case 1. A man had a large diffused swelling on the side of the face ; it pointed between the cheek and arch of the upper jaw, and had existed only for six days. On opening it with a lancet, about half a wine-glassful of blackish-yellow pus, excessively putrid, escaped. One of the teeth was slightly carious ; the abscess was quite healed in the course of five days.

Case 2. A woman, aged 50, had an immense abscess, which occupied all the side of the left cheek and jaw ; it broke, and so abominable was the stench of the matter, that few could approach her. The matter

continued to flow, and shreds of dead cellular substance were extracted ; and in a month she was well.

In this case there was no caries of the teeth, nor any disease of the maxillæ ; and although there was no communication with the cavity of the mouth, the fetid smell was perceived immediately after it burst, and became less and less offensive when the abscess was thereby exposed to the external air.

Case 3. A man, aged 30, had a fluctuating swelling in front, and extending a little to the left side of the larynx. On opening it, the surgeon's attention was struck by the extreme fetor of the contents, and he inferred that the os hyoides or laryngeal cartilages were diseased ; or else that some communication existed between the abscess and the gastro-pulmonary passages. A careful examination, however, proved quite convincingly that it was a simple, uncomplicated collection of matter, reaching from the parotid gland to the middle of the neck, and was neither connected with any caries or ulceration of the hard parts, nor had any opening into the larynx or œsophagus. The patient died of another disease, and the accuracy of the above account was confirmed by dissection.

Case 4. A man, aged 35 years, had suffered much from pain, &c. around the anus for ten days before he applied for advice. An abscess existed close to the sphincter : it was freely opened, and much blackish, stinking pus, mixed with lumps of putrefied substance, and smelling strongly of fæces, was evacuated. The probe did not enter the gut, and the surgeon concluded that the abscess, in spite of its fetid contents, was simply phlegmonous, and might heal without any operation. The patient was discharged, cured, in 15 days.

Case 5. A woman, aged 57, thin, but healthy, was suddenly seized with severe colic in the middle of December, 1831. Two days after, a swelling appeared in the lower and right side of the abdomen ; it was painful on pressure, gradually became more circumscribed, and soon attained the size of two fists. It burst in January, and discharged a large quantity of blackish grey, grumous pus, smelling very strongly of the intestinal contents ; some gas also escaped, and a few pelets of dead cellular substance. A careful examination with the probe could detect no communication with the cavity of the peritoneum, or any part of the gut ; and the speedy cure made it certain that the matter had been formed in the muscular parietes.

Le Dran has recorded the following case.

Case 6. A man, aged 24, was, by his own account, seized with symptoms of enteritis. A tumor appeared in the right groin, and extended to the umbilicus ; it was opened by a bistoury, and discharged much fetid pus. Le Dran thought that this abscess had its seat between the omentum and the muscular parietes ; but the successful result sufficiently proves that it was not connected with the abdominal cavity.

Case 7. A young woman had a phlegmonous swelling in the hypogastric region. On puncturing it, a milky fluid and an offensive pus were evacuated. The patient died, and the abscess was an enormous sac, situated between the peritoneum and the muscles.

Observations on the preceding Cases.—Abscesses in the soft, spongy textures of the gums are very common. The fœtor of the pus has usually been attributed to the co-existence of disease of the teeth, or of the maxillary bones ; but this explanation is not satisfactory in all cases, for such disease often does not exist. M. Velpeau rather ascribes it to air having entered by imbibition, and the matter becoming thereby vitiated from the resulting chemical changes ; for in what manner should abscesses, whose symptoms, progress, and maturation, differ in no respect from ordinary phlegmonous inflammations, be filled with a highly offensive pus, before the possible introduction of air from without or within through any opening, and which are not accompanied with any diseased bones. It is very interesting to remark that these abscesses are observed in such regions as are lying close to mucous canals, and separated from these only by very thin walls. In the neck we find them between the fascia cervicalis and the thyro-hyoid membrane, or the pharynx, the œsophagus, or the trachea ; under the jaw, between the supra-hyoid aponeurosis and the inferior wall of the cavity of the mouth ; in the face, imbedded deep in the flesh of the cheeks—so that the air very probably permeates the texture of the mucous linings, and thus blends with the contents of the sac. The phenomena alluded to are still better observed when abscesses form round the margin of the anus. Many surgeons deem the stercoraceous smell, emitted from such abscesses, as unequivocally denoting the existence of genuine fistulæ in ano. M. Velpeau assures us that this idea is frequently quite erroneous, and reports a case in confirmation. A man had a very extensive abscess, situated close to the sphincter ; and, when opened, every one supposed, from the stench of the discharge, that it must have communicated with the gut. The suppuration, however, speedily dried up, and the sore was cicatrized in a few days. Many analogous cases are narrated. M. Velpeau has, after a careful examination of these, come to the conclusion that a large proportion of true fistulæ ani are originally mere abscesses on the outside of the gut, and that the fistulous aperture into the bowel is a subsequent occurrence. Fortunately, purulent matter has always a tendency to the exterior of the body ; else the thin walls of the gut would, in every case, be inevitably diseased.

When a fetid abscess forms in the abdominal parietes, M. Velpeau thinks that it is developed originally in, or at least takes its start from, the fascia propria, or cellular tissue which unites the peritoneum to the abdominal muscles. The purulent matter being thus deeply lodged, is supposed to receive, by transudation from the bowels, an admixture of gas or of liquids, or perhaps only of odorous effluvia. What induces M. Velpeau to believe that such a transudation does really take place, is, that he has observed that the smell of the pus varies with the situation in the abdominal parietes where the abscess is formed. Thus, in one case where an abscess existed in the right groin, a strong and distinct stercoraceous odor was emitted from the pus ; whereas in another, where the abscess was situated in the epigastric region, the smell was sourish, and not unlike that of imperfectly digested food. Besides, the color of the discharge is found to vary much in different instances, and may be often observed to be somewhat indicative of the substances

which may be contained in the bowel, lying next to the posterior wall of the abscess.

The fetid abscesses of the abdominal parietes are of tedious formation, and are preceded by dull, deep-seated pain, by a tumefaction more diffuse than circumscribed, and by symptoms of general feverish irritation. When the skin becomes prominent, still the fluctuation is often very indistinct; because, in consequence of the thickness and toughness of the integuments, the matter burrows deep, separating the peritoneum from the muscular layers. Sometimes, though very rarely, the contents are discharged into the cavity of the abdomen. Le Dran reports such a case. The rarity of the occurrence is to be attributed to the tendency of suppuration towards the surface, and also to the uniform and equable pressure made by the contained viscera upon the posterior wall of the cyst. The agency of this second cause has hitherto been overlooked; but probably it is the more efficacious of the two. In all abscesses, formed in the abdominal parietes, it is necessary to make a free and large incision. M. Velpeau says that the more extensive the opening, the less danger there is from any re-action of the atmosphere, either on the walls of the cavity or on its contents; and also from the occurrence of the fever of 'absorption,' and of those symptoms of prostration which are not unfrequent in such cases. As to the dressing of the sore, it is to be conducted in the usual manner.—*Journal Univers. et Hebdom.*

CASE OF APHONIA, TREATED BY NITRAS ARGENTI.

A YOUNG woman gradually lost her voice, from repeated attacks of catarrh. Her general health was quite good. During deglutition, she experienced an uneasiness in the larynx. When she did not make any very strong effort to speak out, her voice resembled a low whisper; but if animated, and anxious to exert her speech, a noise, like a succession of shrill whistles, or of the mewings of a kitten, was produced. M. Trousseau treated the case by the local application of a strong solution of lunar caustic, introduced by means of a sponge affixed to a bougie, and gently pressed over the opening of the larynx. The operation was followed by retchings, vomiting, and a cough which nothing could allay. These distressing symptoms abated in about a quarter of an hour, and then the patient assured M. T. that she felt little pain when the caustic was applied; and she expressed her astonishment that already her voice was much stronger, and that she could speak louder than she had been able to do for eight months. She was ordered to gargle her mouth and throat with a solution of alum. The retching and vomiting recurred at intervals till the following day, and the pain of the operation continued for a day or two longer. The patient was, however, able to drink, and to swallow soup, &c. What is strange is, that although, almost immediately after the application of the caustic, the voice was so much improved, at the end of ten days the aphonia was as bad as ever. The remedy was re-applied, but in a still stronger form. A sponge, dipped in a saturated solution of the caustic, was introduced as far as the opening of the larynx, and about ten drops allowed to distil into it. Immediately

a violent convulsive cough arose, by which most of it was expelled in the Doctor's face ! The pharynx, tongue, and lining membrane of the cheeks, were rendered as white as milk. Vomiting and a severe cough came on. Fortunately there was but little pain, and no fever or constitutional disturbance. Her voice did not receive speedy amendment, as after the first operation. The cough was very troublesome for twelve days ; but the voice appeared to have obtained strength, although it was very hoarse. After the thirteenth day, she was able to speak for some minutes in succession, and the aphonia never afterwards returned. The voice, at first hoarse and occasionally squeaking, became more and more clear ; however, after a long walk, or exposure to cold, or too much talking, the hoarseness still returns, but not the aphonia.—*Ibid.*

TWO OBSTETRIC CASES.

[Communicated for the Boston Medical and Surgical Journal.]

[THE following cases from one of the subscribers to this Journal will be read with interest.—ED.]

Case of Retained Placenta.

IN the summer of 1830, Mrs. —, a lady of slender constitution, was taken with pain and slight hemorrhage from the uterus. She considered herself in the third month of utero-gestation, and symptoms favored that conclusion. Means therefore to prevent abortion were immediately used, and eventually succeeded in checking the pain and hemorrhage. In about two months, after considerable exertion and anxiety, she was seized with severe pain about the bowels, back and loins, which was soon followed by hemorrhage of an alarming aspect, and which unfortunately continued without much abatement until the ovum was discharged, which had the appearance of being four or five months old. From this time the hemorrhage gradually ceased, though no placenta had been thrown off. Pain of some severity continued for forty-eight hours after, when it declined. The lady urged to be allowed some exercise, which was forbidden, and the recumbent posture strictly enjoined. But as no placenta had appeared, she became somewhat alarmed, and urged that something should be done for her safety. By examination, the placenta could be felt near the mouth of the uterus, which was rigidly contracted and would allow with difficulty the passage of the finger. It was therefore thought unadvisable to use any manual force, and the *secale cornutum* was resorted to. Pains, severe and continued, followed very soon, but were insufficient to expel the placenta. The effects of the ergot lasted for some hours. Another dose was administered the next day, which had much the same effect as before. Examination was again made, and the placenta was found adherent.

The lady having no pain or hemorrhage, and feeling pretty comfortable, it was thought best to trust the event to nature. She began again to assume gentle exercise, and soon was able to attend to her domestic concerns as usual. Nothing has yet been seen of the placenta. The lady declares that it never was discharged, that nothing of a fetid character was ever observed, and that no inconvenience followed. Her

menses did not return until about five months after, when they became regular as formerly. The lady referred to has more than common intelligence, and is a woman of strict observation and veracity ; and I have not the least doubt of the truth of her statements.

I will relate another case, Mr. Editor.

Mrs. ——— was seized in the fall of 1831 with severe pain in her great toe. The pain, which she said was almost intolerable, continuing to grow more and more severe, I was sent for. The singular character of the pain was immediately noticed. It would last about four or five minutes, when a complete abatement would follow. No swelling, heat, or excitement, was perceptible. I inquired of the lady, who I observed was pregnant, if she did not consider herself in labor. She said—‘ No ; my time will not arrive these four weeks, and I never fell short of my calculations.’ I told her I was apprehensive that labor had already made some advancement. She however could not believe me, as she had no symptoms common to her at such periods, and declared that I was deceived. She begged that I would make some application to the toe, or give her something to quell her pains.

I determined to ascertain, if possible, whether any change had taken place, or was taking place, in the uterus, and insisted upon an examination, which after a while was granted. I found the first stage of labor finished, and the head pressing pretty firmly upon the perineum. She did not believe me when I urged upon her the necessity of calling help and preparing herself and the bed for the occasion. Pain in the toe became more and more severe, and lasting ; and before the bed could be suitably prepared, or attendants called, she was delivered of a healthy boy, and even continued to doubt until the cries of her child convinced her. The pains of her toe immediately intermitted for nearly an hour, when they again ensued, and soon the placenta was discharged and the uterus well contracted. Pain continued however for thirty-four hours, but so mild as to require no medication.

I shall leave the reader to draw such conclusions of the above cases as he chooses. I thought their singularity a sufficient reason for transmitting them to you, even were nothing useful furnished by publication.

D. H. HUBBARD, M.D.

Wintonbury, Conn., December, 1832.

READY METHOD OF ARRESTING-HEMORRHAGE.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I perceive in one of the late numbers of your excellent Journal a case of profuse and obstinate hemorrhage from the extraction of a tooth, arrested with great difficulty by a *dossil of cobweb, sulphate of copper*, and the internal use of *digitalis*.

Allow me to suggest another and still more simple remedy, which I have ever found to arrest such hemorrhage, when the above-mentioned and other local astringents usually employed have proved inefficient. I refer to the application of a *dossil of wool* taken from a *black beaver hat*,

which simple astringent operates like a charm in such cases. Upon one occasion I was called out of bed to a man supposed to be dying from loss of blood, having lost several quarts from the extraction of a tooth the preceding day ; alum, sulphate of copper, and other applications, having been employed without success. I immediately filled the cavity with a dossil of wool taken from my hat, carefully pressing it in contact with the bleeding vessels by means of a probe, and the hemorrhage was immediately arrested.

Upon another occasion, on board the steamboat North America, a passenger who had had a tooth extracted the preceding day, and from which he had sustained a great loss of blood, began to sink from the hemorrhage which still continued, insomuch that the passengers became generally alarmed for his safety, and requested me to see the person, then lying down from the exhaustion induced. I had recourse to the dossil of wool as above recommended ; and, to the surprise of all who witnessed this simple application, the hemorrhage instantly ceased. Having pursued this mode of treatment many years, and in every case with the same good effect, I can with confidence recommend it to your notice.

This application doubtless operates upon the principle of its astringency ; but why it should possess more efficacy than the apparently stronger styptics, is to me a matter of surprise—but the facts related are perhaps worthy of record.

Yours,

D. H.

New York, December 20th, 1832.

CASE OF ISOLATED CHOLERA, SUCCESSFULLY TREATED.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—Should the publication of the subsequent isolated case of malignant cholera, in your opinion, throw any light upon the nature or contagiousness of this prevailing epidemic, or in any other way subserve the interest of the profession, it is at your service for that purpose. It occurred in my practice in this place, in a highly respectable family, who live in a very cleanly and salubrious situation. There was nothing about the premises that could be suspected of generating the disease, and none of the family had been near any person or thing infected with it.

The subject of this case was a boy about three years of age, the son of Mr. S. Swift. He was taken unwell September 24th, 1832, in the afternoon, with a slight diarrhœa, languor and weakness, which was thought to be brought on by eating intemperately of unripe fruit. He took nothing for it, and ate in the evening very immoderately of apple-pie. On the 25th, in the forenoon, he had four or five copious discharges from the bowels, which consisted principally of the undigested contents of the stomach, and vomited two or three times some of the same. The languor and prostration of strength rapidly increased, until 11 o'clock, A. M. when all the symptoms of spasmodic cholera were suddenly and completely developed.

In about twenty minutes after this, I saw my little patient for the first time. The following were some of the most prominent symptoms :—a ghastly, cadaverous countenance ; convulsive spasms of the legs, arms, and muscles of the body, which presented a livid, sunken, and some-

what shriveled appearance ; frequent, small, watery discharges, resembling rice water, from the stomach and bowels ; small, rapid and almost imperceptible pulse ; and great tendency of the body and breath to coldness. I gave him 3j. sulph. eth., and followed it with a pill composed of one grain of opium and two of the submuriate of mercury ; applied hot sinapisms to the bowels and feet, and bottles of hot water with blankets to every part of the body. In ten minutes, finding no relief of the symptoms, I administered the same quantity of ether, and followed it by eight grains of gum camphor, and a starch enema with 3i. tinct. opii in it. At the expiration of 15 minutes, there being no abatement of the symptoms, I gave 3i. tinct. opii, and employed violent friction to the extremities. In fifteen minutes more, finding no relief, I repeated the same quantity of laudanum, and the same quantity of sulphuric ether, and in a short time the discharges and spasms began to abate. I then gave 3i. tinct. camph. comp. ; and in one hour and a half from the time I first saw my patient, there was evident relief of all the symptoms. The countenance assumed a better aspect, the pulse became fuller, slower, and better, warmth returned to the extremities, and their lividity gradually disappeared.

At 3 o'clock, P. M. found him in a copious perspiration, with a pulse indicating a considerable degree of reaction. I abstracted 3vi. of blood ; removed some of the blankets ; gave him about 10 grs. submuri. hyd. ; and ordered, in one hour, a small quantity of flour gruel. At 6 o'clock, P. M. found my patient in a quiet state, with slight spasms at intervals, although he appeared like a person under the influence of a powerful narcotic. Ordered some hot brandy toddy and more gruel ; to be repeated, if the first did not revive him. At 9 o'clock, P. M. the narcotic effect of the opium had subsided in a considerable degree, and he appeared quite happy. He remained in this state about two hours, and then cried incessantly for cold water. A little would not satisfy him, and I found it necessary to quiet him with an opiate. At 3 o'clock, A. M. on the 26th, the calomel given the day previous produced a number of bilious discharges. At 6, A. M. he was quiet, took some gruel, and said he was better. At 11, A. M. he had a number of watery discharges with a flaky substance in them. Gave him 40 gtts. of laudanum by mouth, and 60 gtts. in a starch injection. This treatment checked them for a few hours, when they returned and were suppressed again by the same treatment.

On the 27th, I found the boy comfortable ; he had had a number of bilious dejections during the night, and passed some urine for the first time. From this time he rapidly convalesced ; and at the expiration of one week, he had completely regained his health.

This is the only case of epidemic cholera that has occurred in this region ; but there has been some tendency to it, and an unusual tendency to diarrhœa. The discharges in the bowel complaints of this season have been more watery than at any former period since I have been in the practice of medicine ; and I have had a number of cases that I believe would have terminated in malignant cholera, had not timely and appropriate treatment arrested their progress.

Respectfully yours,

North Falmouth, Mass. Dec. 1832.

L. W. SHERMAN.

INFLUENCE OF OCCUPATION ON HEALTH.—NO. VI.

[Communicated for the Boston Medical and Surgical Journal.]

GLASSWORKERS constitute another class whose employments subject them to great vicissitudes of temperature. In introducing the pots into the mouth of the furnace, and afterward in replenishing them with new portions of the metal, which last operation must be twice repeated, the workman is exposed to an intense heat. The precise temperature in which the person is placed under these circumstances, it is not easy to determine ; but it cannot be less than 180 degrees. This is sustained indeed for a very short period, perhaps a single minute or rather more ; but it is such a degree of heat as could not be endured, by one unaccustomed to it, for an instant. A temperature less intense, but of a longer duration, is experienced by those who in crown glass works receive the glass from the blower, and form the plate by giving to it a rapid rotatory motion. During this process the glass remains constantly in the flame of the furnace ; and the temperature, where the workman stands, is from 100 to 150, according to the season, which of course materially affects the heat at a distance of six feet from its source. From these extremes the transitions to the external air are as sudden, and made with as little precaution, as by those engaged in the last-mentioned process. Still they do not appear to induce disease, or to occasion any material inconvenience. Glassmakers are compelled in blowing to exert a violent action of the respiratory muscles ; yet they do not apparently suffer from this cause. On the whole, however, it is a laborious occupation, and is seldom continued to advanced age. A man who has pursued it to the age of 40 or 45, generally finds it convenient to exchange to some different department of labor.

CLASS VIII.—*Occupations remarkable for the presence or absence of humidity.* As the presence or absence of moisture operates on the system in a great measure through the medium of the atmosphere, it may be proper to premise to this class a few simple facts in regard to the combination of those familiar fluids, air and water. In the language of the chemist, air is at all temperatures a solvent of water ; that is, there is no degree of heat or cold known, at which a body of air, if not already saturated, will not cause to evaporate and to unite with itself a certain quantity of water exposed to its action. The water thus taken up and dissolved is rendered invisible, and does not produce the appearance of mist ; for this latter phenomenon can only take place when there exists a portion of fluid in the atmosphere, merely suspended or diffused without solution through its substance. The quantity of water which the atmosphere is capable of dissolving, varies with its temperature. The warmer the air, the greater is its solvent power, and the greater amount of moisture will it be found to contain. A cold air is therefore dry in this sense, and a hot air moist, although no immediate evidence of this difference is given to the senses.

It is, then, the natural quality of the air to contain moisture ; and therefore this agent is not necessarily the cause of disease. Whether by being saturated with this principle, or by containing it in a state of

mere diffusion, or on the other hand by being artificially deprived of it, the air is rendered capable of producing disease, are interesting questions, on which the consideration of the present class of occupations will tend to throw some light.

BRICKMAKERS, who by their muscular exercise and labor in the open air are allied to the first class, belong to this in virtue of their constant exposure to the contact of water. With their feet continually immersed in wet clay, and breathing an atmosphere saturated with its evaporation, they have full opportunity of testing the influence of this agent on the system. They are not, however, found to suffer more from their occupation than men whose work is under cover and dry. They are not peculiarly subject to catarrh, pleurisy, lung fever, or rheumatism, and appear at least as long-lived as the average of those who work at different trades.

PAPERMAKERS work in very wet rooms. In preparing the rags, the feet and arms are much exposed to cold water. At the vats, the arms are dipped in water and then exposed to the air, while a dense steam generally fills the room during the process of forming and pressing the paper. From this there is the transition to the drying rooms; and the same individuals are at one time over the warm vapor of the vat or perspiring at the press, and at another at the cold employ of putting the paper to dry. But notwithstanding these apparent sources of evil, papermaking is found to be a healthy employment. The workmen sometimes complain of pain in the limbs, but are seldom obliged to discontinue their work, and are by no means peculiarly liable to severe rheumatism.

DYERS are subjected to the action of steam, and are obliged to have the hands and arms very frequently immersed in fluid. They are, however, generally healthy.

HATTERS are exposed to the steam of hot water in two of the processes to which the article is subjected, and to the contact of cold alcohol in a third. They stand for hours with the head immersed in the vapor arising from the vats, while the feet are standing on a cold and damp floor. Their hands and arms are also constantly wet. When very incautious in exposing themselves, while perspiring, to the external air, they sometimes suffer from the change; but in general, the branches of the employment which have been mentioned cause them no annoyance, and do not in any degree interfere with their health.

From the consideration of this class of trades, we seem to be led to the conclusion that wet and dampness are less prolific sources of evil than is generally imagined. It is undoubtedly true, that those unaccustomed to this agent, if once exposed to its operation, are very likely to experience some ill effects, and in common language to take cold; but it appears equally evident, that the power to resist it is easily acquired, and that by many its operation is borne for an unlimited period without injury. There are several other facts besides those connected with the trades above mentioned which lead to the same conclusion. Laborers employed in digging cellars or docks, or in obtaining mud for various purposes, have their feet and legs immersed in water for hours together, yet without the production of more disease than happens to those em-

ployed in dry situations ; for although when illness occurs it is often attributed and sometimes with reason to that cause, yet on the whole it may be said that habit inures to this as to other external agents, and that when its action on the system is not altered by predisposition to disease, it will be sustained for the most part without injury. An instance of constant exposure to wet may be found in sailors, who are washed for hours together in salt water ; scarce any portion of the clothing remaining dry, and this too in severe weather, yet without any ill effect being produced, so that the impossibility of taking cold at sea is almost proverbial. Some are accustomed, I am aware, to attribute their immunity in this respect to the presence of salt ; whether this *have* any agency, or whether the greater uniformity of temperature at sea aid in producing this effect, is a distinct question. The most important fact is, that they are enabled to sustain any degree of moisture at any temperature in which water will remain fluid, for an unlimited period.

Pilots, who in addition to the hardships endured by ordinary seamen are exposed to severe cold and great vicissitudes, are generally healthy, and often attain advanced age before they are obliged to relinquish their hazardous employment. Effects much more unequivocally injurious than any arising from cold or moisture, ensue under the influence of a dry heat, produced for the purpose of warming a working apartment, the effect of which therefore is constant and unceasing. To understand the effect of this, it is necessary again to observe that when the atmosphere is warmed by natural heat, its moisture increases with the elevation of the temperature. Hence it is that the sudden reduction of temperature in the stratum of air exposed to the earth's surface at evening, produces a fall of dew. The deposit of moisture on a glass of cold water in a warm day in summer, is owing to the fact that the air in immediate contact with the glass being suddenly cooled, becomes incapable of retaining its moisture, which is therefore deposited on the surface exposed to it. The frost on the windows of a warm room is produced by moisture deposited in like manner, and then frozen by the colder air without. Many other familiar facts may be explained upon the same principle. The moisture taken up by the air when warmed by the sun's heat is obtained from various sources, but principally from the surface of the earth, which is able to furnish an abundant supply. Now when a body of cold air is enclosed in an apartment and exposed to the action of artificial heat, its temperature being raised it tends at once to unite with an additional quantity of moisture. This tendency takes effect in part, if the fuel employed be such as to give out a considerable amount of vapor before burning, as is the case with wood. If the fuel employed be coal, which yields no moisture, the increased capacity of the air for aqueous vapor can be but imperfectly supplied. Among the sources, however, from which the deficiency will be made up, are the human lungs and skin. Both these secrete from their surfaces under all circumstances a certain amount of moisture ; that produced by the latter constituting the insensible perspiration, and that from the lungs being termed the pulmonary exhalation. Both these are required to lubricate and soften the surfaces from which they exude, and maintain them in a healthy state. When an unusual demand is made on these by the atmosphere, an unusual sensa-

tion is experienced over the whole surface. The skin becomes dry, tense, and burning. The lungs being drained of their natural moisture, are expanded with difficulty, and the breathing in consequence becomes oppressed and impeded. A sensation of dryness is experienced about the mouth and throat, accompanied with the same sort of fulness and stricture with which a common catarrh or cold makes its first onset. In fact the effect on the lining membrane which covers these parts is the same in both cases. These uncomfortable effects from a dry heat, and the ill consequences which follow, are more or less felt in all working rooms artificially heated to a high temperature by the common methods; and the more the heat of the apartment exceeds that of the external air, the greater will be the degree of inconvenience. The remedy for this evil is to be found in procuring a supply of aqueous vapor, which may be obtained from steam-pipes, where this mode of warming is employed; or if a stove is used, by placing upon it a vessel containing water, the evaporation of which furnishes to the atmosphere the moisture required. The effect of this simple contrivance is misunderstood by some, who suppose that it actually withdraws from the air, by some power of attraction, the noxious ingredients contained in it. It is by what it gives, and not by what it takes away, that its beneficial effects are produced. Most of the contrivances, however, adopted for this purpose, err in presenting too small a surface to the action of the atmosphere. The greater the extent of surface, the temperature remaining the same, the greater the amount of vapor produced; and there will be little danger of any excess, though the surface be fully equal to that of the stove employed. The moisture of air, however, as well as its temperature, may be accurately estimated; and an instrument constructed with this object, and called a hygrometer, furnishes every facility for the purpose. In general, however, the sensations produced by the air will, if carefully noticed, furnish a sufficient guide.

The above observations are of course applicable only to those occupations, in which the dryness of the air is an accidental circumstance produced by the high temperature which it is found necessary to maintain. The case is much worse where the dryness of the air is an essential condition to the success of the process carried on. The effect on the system of a working room thus heated for the express purpose of rendering the air as dry as possible, will be well illustrated by some extracts from a description of the dry-houses of cloth at Leeds. In these we are told the thermometer ranges from 110 to 130, while the indications of the hygrometer prove the atmosphere to be in a state of extreme dryness. The employment is one which requires much exercise, and the men are almost entirely naked. They complain of languor, drowsiness, dizziness, perspiration, thirst, and want of appetite. We rarely find an old man in a dry-house, for few can bear the employment after the age of 40. By this time the labor and heat exhaust the nervous energy, and they are no longer able to bear the fatigue. I am not prepared to say how far this description will apply to the corresponding process in our own manufactories; but at all events it serves clearly to illustrate the operation of the general principles which have already been stated.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JANUARY 2, 1833.

MEDICAL INSTRUCTION IN THE UNITED STATES.

IN no country can be found so many institutions for medical instruction as in the United States. This is true as a distinct proposition, and it is probably no less so if limited by the proportion of number of inhabitants or extent of inhabited territory. We have certainly no less than twenty established schools of medicine. Of these schools, there are—

In Maine, *two*. One at Waterville, having four professorships—and one at Bowdoin College, having also four professorships : 1. Of Chemistry and Materia Medica ; 2. Theory and Practice of Physic ; 3. Anatomy and Surgery ; 4. Midwifery.

In New Hampshire, *one*—at Dartmouth College—having three professorships : 1. Anatomy, Surgery and Obstetrics ; 2. Physiology, Theory and Practice of Physic and Materia Medica ; 3. Chemistry and Pharmacy. Medical Jurisprudence is divided among the Professors.

In Massachusetts, *two*. One at Harvard University, having five professorships : 1. Theory and Practice of Medicine ; 2. Anatomy and Surgery ; 3. Midwifery and Medical Jurisprudence ; 4. Materia Medica ; 5. Chemistry. The Berkshire Medical Institution, having six professorships : 1. Theory and Practice of Medicine ; 2. Medical Jurisprudence ; 3. Theoretical and Operative Surgery ; 4. Materia Medica and Obstetrics ; 5. Anatomy and Physiology ; 6. Chemistry, Botany, and Natural Philosophy.

In Connecticut, *one*—at Yale College—having six professorships : 1. Chemistry and Pharmacy ; 2. Anatomy and Physiology ; 3. Theory and Practice of Medicine ; 4. Materia Medica and Therapeutics ; 5. Principles and Practice of Surgery ; 6. Obstetrics.

In Rhode Island, *one*—at Brown University.

In Vermont, *two*. One at the University of Vermont, having four professorships : 1. Natural Philosophy, Chemistry and Pharmacy ; 2. Anatomy, Botany and Materia Medica ; 3. Physiology, Pathology and Practice of Medicine ; 4. Surgery and Obstetrics. The Vermont Academy of Medicine, with five professorships : 1. Theory and Practice of Medicine and Materia Medica ; 2. Surgery and Obstetrics ; 3. Anatomy and Physiology ; 4. Chemistry and Natural History ; 5. Natural Philosophy.

In Pennsylvania, *two*. One at the University of Pennsylvania, having six professorships : 1. Anatomy ; 2. Institutes and Practice of Medicine

and Clinical Medicine ; 3. Surgery ; 4. Materia Medica and Pharmacy ; 5. Chemistry ; 6. Midwifery and Diseases of Women and Children. The Jefferson College, having seven professorships : 1. Anatomy ; 2. Surgery ; 3. Practice of Medicine ; 4. Chemistry ; 5. Materia Medica ; 6. Obstetrics and Pharmacy ; 7. Institutes of Medicine and Medical Jurisprudence.

In Maryland, *two*. One at the University of Maryland, having seven professorships : 1. Theory and Practice of Medicine ; 2. Materia Medica ; 3. Obstetrics and Diseases of Women and Children ; 4. Institutes of Medicine ; 5. Surgery ; 6. Anatomy ; 7. Chemistry. The Washington Medical College, Baltimore, with six professorships : 1. Surgery ; 2. Therapeutics and Materia Medica ; 3. Obstetrics and Diseases of Women and Children ; 4. Theory and Practice of Medicine ; 5. Anatomy and Physiology ; 6. Chemistry and Medical Jurisprudence.

In Virginia, *two*. One at the Columbian College, District of Columbia, with six professorships : 1. Anatomy and Physiology ; 2. Theory and Practice of Medicine and Clinical Medicine ; 3. Materia Medica and Medical Botany ; 4. Obstetrics ; 5. Chemistry ; 6. Surgery. The other at the University of Virginia, having three professorships : 1. Medicine and Medical Jurisprudence ; 2. Anatomy and Surgery ; 3. Chemistry and Materia Medica.

In South Carolina, *one*—the Medical College of South Carolina—having seven professorships : 1. Anatomy ; 2. Surgery ; 3. Institutes and Practice of Physic ; 4. Obstetrics and Diseases of Women and Children ; 5. Chemistry and Pharmacy ; 6. Materia Medica ; 7. Pathological and Surgical Anatomy.

In Kentucky, *one*—at the Transylvania University—with six professorships : 1. Theory and Practice of Medicine ; 2. Institutes of Medicine, Clinical Medicine, and Medical Jurisprudence ; 3. Anatomy and Surgery ; 4. Obstetrics and Diseases of Women and Children ; 5. Materia Medica and Medical Botany ; 6. Chemistry and Pharmacy.

In Ohio, *one*—The Medical College of Ohio—having eight professorships : 1. Anatomy ; 2. Chemistry and Pharmacy ; 3. Surgery ; 4. Materia Medica and Botany ; 5. Obstetrics and Diseases of Women and Children ; 6. Theory and Practice of Medicine ; 7. Institutes of Medicine and Medical Jurisprudence ; 8. Clinical Medicine.

In Georgia, *one*—the Medical Institute of the State of Georgia.

In New York, *two*. The College of Physicians and Surgeons, New York, having seven professorships : 1. Anatomy and Physiology ; 2. Principles and Practice of Surgery ; 3. Theory and Practice of Physic and Clinical Medicine ; 4. Obstetrics and Diseases of Women and Children ; 5. Materia Medica and Medical Jurisprudence ; 6. Chemistry and Botany ; 7. Surgical Anatomy and Operative Surgery. The College of Physicians and Surgeons, Fairfield, having five professorships : 1. Obste-

trics and Diseases of Women and Children ; 2. Chemistry and Materia Medica ; 3. Theory and Practice of Physic and Medical Jurisprudence ; 4. Anatomy and Physiology ; 5. Surgery.

Besides the above, are a great number of incorporated Societies that afford instruction and grant licenses to practise* ; and many private schools, where the healing art is taught by lectures, lessons, and a regular discipline. At these institutions may be acquired a greater or less amount of medical knowledge, at a greater or less expenditure of time and money ; and, *ceteris paribus*, the former will generally be found to bear a pretty direct ratio to the latter. There exists, however, a very liberal disposition among the professors of many, if not all the medical schools, to favor the claims of young gentlemen whose pecuniary means are limited ; and a note, payable at a distant day, is cheerfully received in exchange for the privileges of even the most expensive establishments, where there is sufficient proof of good character and straitened circumstances on the part of the pupil. There are few of our young men, therefore, who cannot command the best medical instruction in the country.

TRAVELING MENAGERIE.

AN unusually fine collection of quadrupeds is now exhibiting in this city. Their number amounts to about thirty, and among them are two elephants, a Bactrian camel, a rhinoceros, zebra, hyena, tiger, leopard, and several other species of animals not generally found in traveling menageries. These caravans are commonly small, consisting of a bear, a lion, and a few monkeys, and are capable of being made but little instructive to children or others who visit them. The best menagerie perhaps in the world, is that at the Jardin des Plantes, at Paris. In England, there are many, private as well as public—the best, probably, being that at Exeter Change ; and next to that, the collection at the Tower, which is now in a very flourishing condition, although we have seen it when it consisted only of a lion, a bear, and one or two birds.

Among the specimens contained in the present exhibition, we would particularly notice the camel, as one not only exceedingly beautiful and interesting in itself, but of a kind that is very rare. During his travels in Arabia, Niebuhr saw but three two-humped camels. These animals are seldom found, except in the great middle zone of Asia, to the north of Taurus and the Himalaya Mountains ; and that menagerie is valuable that contains one of them, however few or common may be the other animals that compose it. The present opportunity ought not to be neglected, by those who reside in or visit the city, to witness for themselves and present to their children the real forms of some of the most tame and

* A very minute and accurate account of all the schools and societies may be found in the first vol. of the Transactions of the Medical Society of the State of New York.

sagacious, as well as the most ferocious, of those quadrupeds the history of which is always so full of interest and instruction to the young.

On the Cure of Amenorrhœa by Leeches applied to the Mammæ.—There are but few of the sympathies that exist between the remote parts of the body which so decidedly manifest themselves as that between the uterus and mammæ. It would, therefore, be useless to point out how many physiological and pathological facts demonstrate this in practice. The father of medicine was not ignorant of this great sympathy, and availed himself of it therapeutically; for in floodings he recommends dry cupping to be practised on the breast, with the view, no doubt, of causing a revulsion, and exciting a new action in the womb.

Reflecting on this principle, it occurred to us that if an action could be induced in the capillary vessels of the mammæ, the womb might in other diseases be made to sympathize with these parts. Leeches seemed to be the most likely means of producing this action; and in a case of amenorrhœa of two years standing, two leeches were applied to the lower part of each breast for a month, repeating them on alternate days. In three weeks the mammæ swelled to an enormous size, giving a sensation to the patient as if they would burst. About the end of the month menstruation came on, and the young lady is now the mother of two children. Several other cases, in which the leeches have been tried, have been followed with the same results, and no medicine has been used excepting an aperient to keep the bowels open.

Although this remedy is submitted to the profession as a very certain means of exciting uterine action in this disease, and is founded both on the principles of physiology and pathology, it is not held up as a specific in all cases of amenorrhœa, and is not intended to supersede, but to be combined with, the other auxiliaries in the treatment of that disease. Hence purgatives, local and general, vapor baths, hellebore, and the other remedies which experience has pointed out as useful, should not be neglected. Nor is the author of the present notice aware that this practice did not exist at some previous time in the history of medicine, although, if it did exist, on what grounds it was abandoned it is difficult to conceive. Leeches were used in medicine long before the Christian era; mention being made of them both by Pliny and Galen.—*Edinburgh Medical and Surgical Journal*.

Dropsy cured by Muriate of Gold.—Dr. Wendt relates in *Rust's Magazin*, B. XXV. eight cases of dropsy, of which seven were cured by the muriate of gold; the eighth case was complicated with consumption. This remedy has been employed for several years in the hospital at Breslau, and with success. Most of the cases were the sequelæ of intermittent fever.

Whole number of deaths in Boston for the week ending Dec. 28, 36. Males, 19—Females, 17.

Of scarlet fever, 4—consumption, 4—inflammation of the bowels, 1—child-bed, 3—apoplexy, 1—old age, 2—infantile, 3—hooping cough, 1—unknown, 1—chickenpox, 1—dropsy on the brain, 1—disease of the spine, 1—burn, 1—accidental, 2—Intemperance, 1—inflammation in the head, 1—fits, 1—lung fever, 1—brain fever, 1—canker, 1—sudden, 1—typhous fever, 1.

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CASE OF SPINAL IRRITATION.

A Case of Spinal Irritation. By ROBERT J. TURNBULL, M.D. of
Charleston, S. C.

WE know of no one medical fact, of recent observation, which has illustrated the nature of so many diseases, and those too of an anomalous and obscure character, as the above condition of the spinal cord. When reflecting upon those maladies which have been classed under the vague and indefinite appellation of *nervous* or *functional* diseases, may we not indulge a rational hope that the limits of these classes are about to be narrowed down to the smallest compass, and that our *divine art* is about to be rid of terms which are but so many evidences of our ignorance of the seat of disease? and may we not also augur the happiest results from the work already begun? We find ourselves no longer satisfied with the vague illustration of angina pectoris, as a *functional* disease; or hysteria, as dependent upon a *general derangement* of the nervous system. This '*airy nothing*' has at length received 'a local habitation and a name.' As there may yet exist some, who are ignorant of the existence of this affection of the spine, and consequently of the rational interpretation of those phenomena which declare its existence; as also those who, though not ignorant of such a morbid condition of the spinal cord, yet do not acknowledge the symptoms which have been deemed indicative of its existence, as referable to such a condition of the spine, we cannot but flatter ourselves that a case so marked as that which we are about to record, will prove highly satisfactory, both as to the existence of such a disease—the propriety of addressing our therapeutical agents to the spinal column alone—and also of their prompt remedial agency when thus applied.

In the month of August, 1831, I was requested to visit Harriet B., aged nineteen years, milliner by occupation, who had just returned from the country where intermittent fever prevailed. I found her with all the symptoms of an intermittent in its second stage; but upon inquiry I learned that there had preceded no marked chill. For want of better information as to the history of the case, and particularly as the physician in the country had pronounced the similar attacks which she had experienced, of the character of intermittent fever, I treated her present disease as such; and convalescence was the result. I now learned that

she had been frequently subject to this fever, about the catamenial period, which fact, taken in connection with that already mentioned, viz. that there had preceded no marked chill, at once gave me an insight into the nature of her complaint. I now naturally interpreted the fever, as an effort of the system to bring about this secretion ; and again upon inquiry I learned that the irruption of the menstrual secretion was synchronous with the subsidence of the febrile symptoms. Upon inquiry as to the quantity and performance of this function, I was furnished with all the symptoms of dysmenorrhœa and menorrhagia ; and I was also informed that they had long existed.

Being temporarily relieved of the uterine complaint, I was now consulted as to certain anomalous symptoms, which had existed for *five years*, and had baffled the skill of many physicians, and some of them our most eminent. These symptoms were *pain in the right hypochondriac region*, pain in the *right shoulder*, pain *shooting up the neck* and back part of the head, also a *hacking dry cough*, which were all aggravated towards evening, continued throughout the night, and depriving of all sleep until towards morning, when there usually occurred a mitigation of the symptoms. These pains were represented as excruciating, and my patient expressed herself willing to submit to any treatment, however tedious, which would promise hopes even of partial relief—the idea of total relief was too delightful to anticipate. From these symptoms I very naturally thought that I had to encounter a chronic hepatitis, associated with a general derangement of the chylopoietic viscera ; and to which general derangement, I was disposed to attribute the derangement of the functions of the uterus. To remedy the first, all the usual articles of the materia medica were put in requisition, both locally and constitutionally. To induce a healthy condition of the uterine functions, such advice was given as tended to improve the general health, but without the slightest relief.

The reflection which the above failure induced, led me to refer the complaint to the class neuralgia, as had been recently illustrated by Teale and others ; with these, I now began to suspect that the cause of the disease was to be sought for at the origin of the nerves affected. Pressure was accordingly made upon the spinous processes of the vertebræ, throughout the whole column, and the result was pain, about from the second to the sixth cervical ; about the fourth or fifth dorsal, and again about the last dorsal, or first lumbar vertebræ. This examination satisfied me as to the spinal origin of the disease ; and upon a more minute inquiry as to the nature of the pains, I was informed that the pain in the head was *superficial*, and *ramified* over the occiput and under the scalp ; that the pain in the shoulder was that of ‘a knife piercing the part ;’ that the pain in the side was in the *course of the rib*, which was evinced by laying the index finger parallel to that bone, when asked as to the kind of pain which she experienced. She had some months experienced much pain in the lumbar region ; and upon inquiry, she informed me that at that time she had numbness in the lower extremities, and that for a few days back she had experienced a *weakness* in her *right arm*. These symptoms determined me to the treatment which ought to be pursued, and I accordingly applied three moderate-sized

blisters over the spots tender upon pressure. Great constitutional irritation supervened, with an aggravation of all the local pains, particularly that of the right shoulder ; but the catamenia making their appearance at this time, I was at a loss to determine whether the aggravation of the symptoms was attributable to the action of the blisters upon a peculiarly sensitive skin, or whether referable to the disturbed condition of the circulation, dependent upon the menstrual effort. Accompanying this condition of the system, there was involuntary *twitching* of the body, but chiefly of the *right arm*. All these aggravated symptoms subsided with the eruption of the catamenia, and the abstraction of the blisters. The treatment was now omitted for a week or ten days.

Upon again visiting my patient, I found that the disease had progressed ; and a few days after, the *weakness* of the arm was so great as to preclude its use, even at her meals. When the hands were put into cold water, pains darted up the arm. I now determined to treat the case, *de novo*, as spinal irritation ; and I commenced with a liniment composed of equal parts of olive oil and spirit of turpentine, which was afterwards increased to three parts turpentine, and finally to four parts turpentine to one of oil. This liniment was used three and four times a day, with marked benefit. A mitigation of the pains followed its use, and the arm was so much strengthened, that upon one of my visits I found her using it *violently* in drying a large teaboard. I now began to entertain hopes of a cure, to accomplish which, I began with the more stimulating application of *tartar emetic ointment*, which was used with progressive benefit, until, contrary to my directions, the remedy was pushed too far ; and great constitutional irritation was again set up, aggravating all the symptoms, and accompanied with the involuntary *twitchings* of the body and *right arm*. These subsided with the subsidence of the pustular inflammation ; and a more moderate use of the ointment continued to mitigate her sufferings, and eventually relieved all those symptoms which had existed for more than five years without intermission. She now tells me 'that all her pains are gone, and she cannot express how much better she feels.'

Though relieved of the symptoms dependent upon the irritation existing in the spinal cord, the dysmenorrhœa and redundancy of the catamenia were not materially affected ; in connection with which, however, it ought to be remarked, that the lumbar portion of the spine, tender upon pressure, was much neglected in the treatment, owing to the inconvenience of making the application. She never observed the horizontal position. This, we believe, unnecessary, when the disease exists in the cervical or dorsal vertebræ. In the lumbar vertebræ, however, owing to the superincumbent weight, as also to the greater latitude of motion, the recumbent posture, no doubt, will be productive of great benefit. In making our applications to the spine, care should be taken lest we produce too general and intense an inflammation in the vicinity of the original affection, which will not fail to extend itself to the subjacent spinal cord, and thus augment that irritation which it was our design to remove. We cannot take leave of this case, without making some reference to the connection and dependence of the symptoms upon the morbid condition of the spinal cord. These, we have already said, were pain in the

back part of the head, ramifying over the occipital portion of the occipito-frontalis muscle—pain shooting up the neck—pain in the shoulder, in the hypochondriac region, and in the course of the rib ; also a troublesome dry cough. Let us now connect these symptoms with the origin and distribution of the nerves arising from the diseased portions of the spinal cord.

The sub-occipital or tenth pair of nerves arises from the medulla spinalis, between the occiput and first vertebræ of the neck, and divides into two branches ; the posterior gives nerves to the deep-seated, small muscles arising from the first and second vertebræ and the occiput, as also to the *complexus* and *splenius* muscles, on which we must locate the darting pains in the neck. The second cervical, issuing from between the first and second vertebræ of the neck, divides into two branches ; the superior inosculates with the sub-occipital nerve ; the posterior branch likewise supplies the *complexus* and *splenius* muscles, and communicates with the first cervical ; its branches also extend ‘over the occiput, even to the summit of the head.’ The fourth cervical divides into two branches ; the first goes to form, with the third and fifth cervical nerves, the *phrenic nerve*, and sends also a branch to the sympathetic, to the *integuments* of the *neck* and *shoulder*, and to the *supra* and *infra-spinatus muscles* ; the posterior division of this nerve passes to the muscles of the spine and shoulders. This distribution of nerves arising from the diseased portions of the spinal cord, as evinced by the pressure made, will fully elucidate the pains in the neck and shoulders. The origin of the phrenic nerve, from the third, fourth, and fifth cervical nerves, the two first vertebræ of which were tender upon pressure, will account for the convulsive action of the diaphragm, giving rise to the ‘*dry, hacking cough*.’ It becomes us however to say, that this cough yielded to antimonials, and that, too, before any application was made to the diseased spine. The axillary plexus is formed by the fifth, sixth, seventh, eighth, and first dorsal nerves. The nerves of the arm being derived directly from this plexus, whose origin we have seen was diseased, as evinced by the pressure made upon the fourth and sixth vertebræ, will afford us an explanation of the pain in the arm and its subsequent weakness—I might say paralysis. It remains but to account for the pain in the *course of the rib* ; the reader will, no doubt, anticipate us in saying, that we refer this to the intercostal nerve, coming from between the fourth and fifth dorsal vertebræ, which, it will be recollected, were tender upon pressure.

We now take leave of this case, hoping that its recital may prove as instructive to others as it has been to ourselves—that it will be recollected for the future, that pain in the right hypochondriac region, accompanied with pain in the shoulder, is not a diagnostic of the existence of hepatitis ; and that, under these circumstances, the patient ought to be examined as to the existence of the above condition of the spinal cord.
—*American Journal of Medical Sciences.*

CHOLERAPHOBIA.

Cases of Cholera-phobia ; with Remarks on the Effects of Fear as producing Disease during the present Epidemic Cholera. By Dr. TELLIER.

CASE I. A woman having died in a few hours with a violent attack of cholera, in a district where the disease had been previously unknown, her neighbor, a nervous female, was greatly alarmed, and suddenly seized with shiverings, universal tremblings, and inexpressible uneasiness. She was put to bed, made warm, and had warm drinks administered ; and all untoward symptoms disappeared in a few hours. Some days afterwards she was taken with a serious looseness in the bowels, about which, however, she did not feel alarmed ; and in the night she was suddenly seized with violent cholera, and died.

CASE II. A man of a tolerably strong constitution, who had been bled a few days before for palpitations of the heart, fancied, all of a sudden, that he was seized with cholera, because he had some shiverings and cramps, and especially because cholera was in the country. He went to bed between the blankets, had bottles of hot water, and drank abundantly of very warm tea. His countenance was excited, skin hot and moist, pulse frequent and hard ; he had neither vomiting nor purging, urine secreted as usual, tongue natural, and intellects more active than usual. Some hours afterwards he became more and more light-headed ; he jumped out of bed stark naked, exclaiming that he had not an hour to live. His physician arriving at the moment, spoke to him in an authoritative tone, which dissipated his alarm. He went to bed again, slept quietly, and on the following day was perfectly well.

CASE III. A chambermaid, twenty-four years old, who had been ailing for several days, was seized, a few minutes after she had taken some coffee at breakfast, with much uneasiness and shivering. She fancied that she was attacked with cholera. She went to bed, made herself as warm as possible, and drank hot chamomile tea. Pulse small, and 108 per minute ; heart beating tumultuously ; skin hot, tongue natural, respiration somewhat embarrassed. There was neither vomiting nor purging, but her spirits were greatly depressed. Some ordinary medicines, with an opiate, were administered. She slept soundly, and on the following day was so well that she remained up a long while, and subsequently merely suffered with common diarrhœa.

CASE IV. A woman, thirty-five years old, lately cured of an ordinary bowel complaint, after being exposed to cold in the evening, washing her hands in cold water, and eating a hard egg, felt cold and went to bed, but was shortly obliged to get up to relieve her bowels. She was then seized with shivering, and felt convinced that she was attacked with cholera. Her pulse was very quick, beating more than one hundred per minute ; respiration short and difficult ; she felt stifled, her heart beat violently, face red and hot, and tongue natural. She had neither vomiting nor purging. She was bled freely, and put on low diet ; and demulcent medicines, with a slight opiate, prescribed. But the dyspnœa increased, and the pulse became still more accelerated. While the patient was loaded, or rather overloaded, according to her own desire, not

only with bedclothes, but with all manner of garments, and hot bottles and warming pans continually applied, if the least breath of air flew on her she shivered violently, even when her skin felt burning hot. During the day, leeches were applied to the pit of the stomach, but they were removed before they began to draw blood; and the mustard poultices ordered were not kept on. A grain and a half of opium, with three grains of digitalis, given in three divided doses, at intervals of three hours, had no effect on the pulse, and did not procure sleep. During the night the dyspnœa was greatly increased; the pulse rose to 140 per minute, and the heart beat with violence. She was again bled, and infusion of limeflowers, with orangeflower water, prescribed; but without relief. The intellects became disturbed, sensibility blunted, respiration still more difficult, and at length intermittent; and the patient died within thirty hours from the commencement of the attack.

From these cases, and many others he has observed, and an account of which he proposes to publish hereafter, Dr. Tellier concludes that even the most violent fear cannot produce the 'blue cholera,' but bring on a particular disease, to which the name *phobia* (choleraphobia) may be given. The only known cause of this disease is fear; the symptoms are agitation, general uneasiness, disposition to shivering, skin hot, and often moist, pulse hard and frequent, countenance excited, tongue natural, absence of vomiting and purging, bowels sometimes confined, excitement of the nervous system and often cramps.

The diagnosis is easy, especially when the cause is known. The prognosis must be often unfavorable, since the disease so frequently has proved fatal.

The treatment is difficult to decide on. To calm the imagination is a thing in general impossible; the patient is persuaded of the truth of his delusions, and the nervous system being in such a disordered state, he is no longer master of himself.—*Gazette Medicale.*

ASSAFŒTIDA IN HYSTERICAL VOMITING AND NEURALGIA.

Hysterical Vomiting and Neuralgia, cured by very large Doses of Assafœtida. Case reported by Mr. DWYER.

JULY, 1832. Anne May, æt. twenty-nine, married, has had four children; her last, two years since, stillborn; after which confinement she got cold, with pain in the left side, shooting from the scapula to the region of the heart. She was admitted into Meath Hospital three months ago, for a severe attack similar to the present, together with some fever, and was dismissed relieved, having been bled, leeches, and blistered. Admitted on the 5th July. She states that, for the last fortnight, she has suffered from pain shooting from the backbone, and along the course of the ribs till it arrives opposite the heart, when vomiting of bilious matter is induced by its severity. Never vomits without this precursory pain. At present she rejects everything from her stomach; no tenderness of any part of the abdomen on pressure; her general aspect is excited, and her respiration is extremely hurried, irregular, and accompanied by heaving of the chest and occasional sighing. This state of the respiration ap-

persists to persist during the whole period of the attack, which, however, in its other symptoms is variable, and consists of paroxysms, alternating with intervals comparatively calm. She lies for some time quiet on her back, and then suddenly starts up, rolls about in the bed, shrieking with agony, weeping, and agitated by violent eructations and vomiting, without, however, any disturbance of the pulse. Has never had Globus hystericus, nor has she been subject to headache or pain in the temple; appetite, previous to this attack, pretty good. Catamenia always regular; bowels generally confined; urine scanty, and deposits a copious sediment; pulse sixty-four; tongue moist; complains of thirst, perhaps from vomiting.

On the examination of the spine, she shrinks from pressure over the dorsal spines and along the projections of the ribs round to the left mamma. No palpitation of heart; no morbid phenomenon detected by stethoscope.

6th. Ordered actual cautery, to six points on each side of dorsal spines; and Assafoetidæ gr. x. 2ndis horis.

7th. Paroxysms of pain and vomiting occurred frequently up to twelve o'clock last night, when they ceased, and have not since returned. The cautery was applied, and she took twenty-two pills. Bowels confined, urine scanty and thick; other functions natural. Some tenderness still; respiration now quite tranquil; slept well.—Enema fetidum bis die. Repet. pilulæ 3tiis horis.

8th. No return of pain or vomiting; there is still tenderness on pressure, but less in degree; slept well; took sixteen pills, and had the two fetid enemata, which produced two scanty evacuations of hard fæces; respiration and other functions natural; bad appetite, she does not care for food. Convalescent.

13th. To-day she has some wandering pains in the right side, not severe.

Observations. My experience in other cases of a similar nature enables me to attribute the cure of this to the assafoetida, and not to the cautery. It is worthy of attention that she had taken 120 grains of assafoetida before the disease yielded, and that the improvement was permanent. In hysteria, when the patient can be prevailed on to take this medicine, I know nothing more efficacious than assafoetida; but to be serviceable, it must be given in very large doses, as has been long ago remarked by practical physicians. When exhibited in small doses, as is usually the case, it too frequently appears to be inert, and consequently has of late rather fallen into disrepute.—*Lon. Med. and Phys. Journ.*

PARALYSIS OF THE PORTIO DURA, CURED BY MOXAS.

A. M., aged 43. The mouth was much drawn to the right side, and the right commissure pulled considerably upwards, while the left was directed downwards and inwards, leaving the front teeth exposed; the left cheek was much stretched, and closely applied to the alveolar arches; the left eyelids closed imperfectly, and thus part of the cornea was unprotected; the cause of this was chiefly attributable to the upper lid

being drawn up by its levator muscle. Considerable conjunctivitis had ensued, but the vision did not seem affected. The food was always involuntarily carried to the right side of the mouth; the saliva and any drink trickled from the left angle of the mouth down his chin; the speech at first was not affected, but afterwards he could not pronounce certain words; the sensibility of the parts, and the functions of taste and smell, were perfect. The symptoms had existed for seven days, and no assignable cause could be stated. A moxa was applied over the condyle of the lower maxilla, and good effects were apparent, on the second day, in those parts which are supplied by the middle or transverse branch of the facial nerve; a second moxa was, therefore, ordered over the angle of the jaw, and speedily the speech became more distinct, the deformity of the mouth less, the food was more easily and steadily retained between the teeth in mastication, and liquids could be better retained. When the patient attempted to pronounce the letter 'O,' the hiatus of the mouth was decidedly less on the affected side than hitherto; still the motions of the left eyelids were very imperfect, and, therefore, two days after the last moxa, a third was ordered over the course of the ascending twig of the nerve. The effects were most gratifying; for on the same evening the patient could close the lids quite accurately, the ophthalmia disappeared, and in seventeen days the patient was discharged well.

Reflections. This case shows satisfactorily that such affections of the facial nerve are frequently local, and not at all connected with cerebral disease. The occurrence of the paralysis successively in the different branches of the nerve, and the effects of the treatment, first on one of these branches and then on the other two, are very interesting, and confirm the opinion just stated. The propulsion of the food between the teeth and cheek of the right, or healthy side, causing it to be distended, and requiring the finger to bring the mouthful between the teeth, is rather contradictory to what is usually observed.—*Ibid.*

LOCAL USE OF THE ACETATE OF MORPHIA.

Cases of Rheumatism, treated by the Local Use of the Acetate of Morphia.

A WOMAN, aged 28, had a smart attack of rheumatism in both knees, the shoulders, and wrists; the pains were constant, and the affected parts were considerably swollen and red. She was freely bled from the arm, without relief—blood sizey. A blister on each knee ordered, and the raw surfaces to be dressed with half a grain of acetate of morphia; for the three subsequent days she was quite free of all pain—the quantity of the morphia increased to three quarters of a grain. In two days more she had completely recovered.

Case 2. A man, aged 27, was seized with violent pains in both knees on the 15th March. On the 22d, the joints were blistered, and the morphia applied in the dose of a quarter of a grain. In two days the pains were much relieved. On the 28th, he was pronounced cured.

Case 3. A young man, aged 16, suffered unremitting pains in the

knees, wrists, and elbow-joints, which were swollen, red, and very tender on pressure, and incapable of being moved. For three nights he could not sleep, from the severe suffering; pulse full, skin burning hot: he was bled and starved. Next day the pulse was more favorable, but the pains rather worse: a blister to be applied to each knee, and the surfaces to be dressed with a quarter of a grain of the acetate of morphia. This treatment was continued for four days, when the patient made no complaints but from the blistered surfaces.—*Journal Hebdom.*

CASE OF SEVERE SCIATICA CURED BY BLOODLETTING.

A. R., aged 39, had suffered for a month from excruciating pains in the upper and back part of the right thigh; they shot down on the outer side of the limb to the ankle and foot, and generally ceased with a distressing shaking or trembling of the extremity. These paroxysms returned almost every hour, and were so agonizing as to force the patient to scream out. While they lasted, the whole limb appeared to be affected with a tetanic spasm, the gastrocnemii muscles being drawn into hard knotty swellings. During the intermissions, there was a constant, slightly-hot pain along the course of the sciatic nerve. He was largely bled from the arm, and thirty leeches ordered over the sciatic notch, to be followed by opiate poultices. On the following day, the number of paroxysms was reduced by one-half, and the character of the pain changed from cramp and the feeling of burning, which shot like a rocket from the hip to the toes, to that of cold water gliding rapidly under the skin in the same direction; leeches to be re-applied. In two days the pains had quite disappeared; and in order to confirm the cure, the patient was ordered to rub in twenty drops of croton oil on the outside of the thigh; a copious eruption of pustules was produced, and, in six days more, the patient was discharged cured.—*Ibid.*

CHOLERA IN BROCKPORT, N. YORK.

BY E. M. H. ELLIS.

[Communicated for the Boston Medical and Surgical Journal.]

THE village of Brockport is situated on the Grand Erie Canal, twenty miles west of Rochester, containing a population of fifteen hundred, and distinguished alike for its salubrious location and the enterprise of its inhabitants. In the latter part of June, 1832, considerable excitement was produced on the reception of the news of the cholera at Montreal, and a Board of Health was immediately organized to take measures for the security of the health of the citizens. About the fifteenth of July, the first case occurred at Rochester; and from our immediate vicinity, and constant daily communication, strong fears were entertained that the insatiable disease would soon commence its ravages with us. The first case, however, was a stranger from Rochester on his way westward, about the first of August, who stopped a few days at one of our hotels in consequence of a diarrhœa. He applied to one of the village physi-

cians, who gave him a few astringent powders of kino, and promised to see him the next morning. The visit was however delayed until the afternoon, and the patient was then found in the last stage of cholera. This case added but little to the alarm, many of the inhabitants visiting him with impunity, and fortunately there was no further spread of the disease after his decease. Many of the neighboring villages were suffering from this scourge of nations, while Brockport remained perfectly free from it until about the middle of September, when an African, for some time a common laborer in the village, and of intemperate habits, was attacked, after drinking several glasses of brandy and new cider, and lying out of doors exposed to the night air. He was seen on Wednesday morning by Dr. M'Clure, but was then in the stage of collapse, attended with some spasms, having, during the night, freely vomited and purged the fluid peculiar to this complaint. From motives of curiosity I went to see him at 11 1-2 A. M., and found him with the same peculiarities I had observed in other cases at Rochester. There was an universal coldness of the surface—enough to make one shudder on applying the hand; pulsation had ceased at the wrist, but a gentle pulsation of the carotid artery could be distinguished; the muscles of the arms were spasmodically shortened—the skin of the fingers shriveled and loose—and a cold clammy sweat was upon his face. The attending physician had attempted to bleed him from both arms, but failed in the attempt; and having directed frictions of Tinct. Canthar. and given some warm cordial internally, left him. I found his wife very leisurely rubbing his extremities with Tinct. Canth.; and directing her to heat some stones to apply to the feet, I commenced rubbing him briskly for about half an hour, but to little purpose. I then returned home, and at 2, P. M. proposed to a brother student to visit him with me. I prepared three or four ounces of the camphorated mercurial ointment, recommended in a number of your Journal as being found successful in New York, confident that if it would not be of benefit it could do no injury. We found him much as I had left him, and commenced, with the assistance of an African, applying the unguent. In about twenty minutes he became more restless—the surface in some places was quite warm—and the blood began to trickle from the orifices in his arms. We were much gratified with the result of this experiment, although the man was too far gone to hope for any benefit, and were satisfied that the unguent would be of service in incipient stages of collapse in promoting the circulation. The man died in an hour, and a *post-mortem* examination was refused. This case produced no excitement whatever; and thus ended the ravages of the cholera in Brockport.

I may add that many of the citizens of this place, on the first appearance of the disease in Montreal, had imbibed an opinion that it was contagious; but at this time it would be difficult persuading any of them into that belief. I know the fallacious nature of arguments drawn from one or two examples; but the perfect impunity with which communication was continued between the sick and well in this and other places that have come under my observation, is sufficient to explode the theories of superficial speculation.

Brockport, December 26, 1832.

RECOVERY FROM COLLAPSE OF CHOLERA.

Another Case of Recovery from the Collapse of Cholera. By JOHN C. HOWARD, M. D. Phys. and Surg. to the House of Industry.

[Communicated for the Boston Medical and Surgical Journal.]

Nov. 30th, 1832. Dr. Gay passed the night at the House of Industry, and was requested to see John Macauley, a boy five years of age. On inquiry, he understood that he had vomited and purged for an hour previous. His countenance and pulse were good when first seen by Dr. Gay. In the space of a short time vomiting occurred, which was accompanied with a great change in the countenance. During the time Dr. G. attended the child, there was frequent vomiting and purging, although the quantity of matter was small; no urine was voided; the alvine evacuations had the usual character of rice water. Notwithstanding every effort, the child continued to sink until eight o'clock, A. M. when the pulse was very small and feeble; the extremities were cold, and of a blue color; the tongue was cold and had a slight white coat; the voice was in a whisper, and the breathing very laborious; the boy has passed no urine since first seen. He continued to sink until half past nine, when the pulse was imperceptible—the extremities very cold and moist, blue color well marked, the tongue was more cold, and the countenance fully indicative of the state of collapse in this disease. The usual expression of the face and eyes was completely obliterated, so that it could not be supposed that the child could have been recognized. The respiration was at this time exceedingly laborious, and the voice in a whisper that could scarcely be heard: as yet no urine voided.

The treatment of this case consisted in the administration of submuriat. hydrarg. x. grs., opium $\frac{1}{2}$ gr., camphor grs. ij. every hour, the immediate application of sinapisms to the feet and abdomen, and of the strong mercurial ointment with camphor and cayenne pepper to the inside of the thighs; the quantity rubbed in was 3ss. at each time. At half past eight there was a very slight appearance of bile in what was vomited; the powders of submuriate, opium and camphor were generally rejected. The above treatment was persisted in until half past nine, when Dr. Gay seeing the boy collapsed, considered the case as hopeless.

At half past ten I saw him, and he was then pulseless and voiceless, and in fact had nothing in common with a living being but the slow heavings of respiration, and a countenance truly cadaverous. I directed fresh sinapisms to his feet and stomach, and warm applications all around the body, and administered *submuriate hydrarg. grs. xxx. in a dessert spoon, with a syrup made of pulv. gum acacia and sugar. In the space of two and a half hours the pulse was just perceptible, and there was slight warmth of the extremities; in four hours the pulse was stronger, and he had a discharge with some bile. Directed a scruple of the submuriate (this was at three o'clock, P. M.). He was very thirsty, and drank barley water. At 6, P. M. he had another dejection, somewhat bilious.

* I have found that calomel is better kept on the stomach alone, and have accordingly given it so, uncombined with opium in any form; and of this I am convinced from having witnessed its exhibition in many cases of cholera.

8, P. M. pulse 120, full and soft, extremities warm, countenance much improved, respiration more easy and natural. 9 o'clock, P. M. seen by Dr. Wing, who passed the night at the House of Industry; was comfortable through the night. 9 o'clock, A. M. found the fever of reaction very strong; and, as I have uniformly observed in recovery from collapse, the brain was peculiarly oppressed; the patient seemed to be suffering from that febrile state which usually precedes effusion in hydrocephalus, and in truth he had some of the pathognomic symptoms of that disease. I am induced to mention this circumstance, to call the attention of practitioners to the fact in the recovery from the collapse of cholera; for, at this very time, and in the same room, I had a little patient in the last stage of hydrocephalus, who had five days before recovered from collapse.*

I would mention, in connection with what I have just said, that two adults died of apoplexy, who might perhaps have been relieved had the lancet been freely used. With such sad experience, I directed, to relieve the vessels of the brain, a blister over the head; and, when it should have vesicated well, to be dressed with the unguent. hydrarg. fort.; fresh sinapisms to the feet and epigastrium; submur. hydrarg. grs. iij.; creta preparata grs. vj. every third hour, with barley water and flaxseed tea for drink. These means had a good effect, and the next day I rejoiced to see my little sufferer again open his eyes upon the world and observe external objects, for it was but a few hours before I had certainly believed them closed forever. Mercurial ptyalism was a source of trouble for a few days, but it soon passed off.

Boston, January, 1833.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JANUARY 9, 1833.

COMPARATIVE MODES OF TREATING THE CHOLERA.

How fruitless would be the attempt to enumerate, in a work like this, the remedies that have been proposed for the cure of the cholera; much more to institute any comparison between their several merits. This is a task, not for an individual, but for a medical commission; and it is to be hoped that by such it will shortly be undertaken. A work so herculean, and of such responsibility, should be committed to able and unprejudiced men, and to such, if possible (and some such we have now among us), as have the aid of extensive practical observation. It is a work that should be conducted under the auspices of the Government of the Country, the Commonwealth, or the City; and the Report on the subject that has al-

* Might not this little patient have been saved, had I zealously followed the indication and done what I could to relieve congestion of the brain by prompt bleeding, vesication, &c.? I think he possibly might.

ready emanated from the Massachusetts Medical Society, points to that body as the instrument by which the proposed Sequel would be most ably and independently executed.

We are not aware that a proposition of this kind has ever yet been made; but the time seems to have arrived when it becomes proper to view the subject in this light—to take a retrospect of the experience of the faculty in every country in which the disease has prevailed—to note the various methods of cure that have been proposed—state which of these remain for trial, which have been brought to the test of experiment, and the comparative claims of them all to trial or adoption. As we would not go so far as to suggest any plan for a report of such magnitude, so, should we shrink from deciding on the most appropriate mode of originating it; but it occurs to us that the Legislature now in session might with great propriety request such a report from the Medical Society of the Commonwealth, and make a suitable appropriation for an object of so much importance—an object that touches not so much the property or liberties of the people, as their comfort and their lives.

When literary or scientific associations are incorporated by the State Government, and under its especial patronage, it seems peculiarly proper that they should be called on to furnish information on subjects occurring within their province, when any peculiar circumstances make it clear that such information would be productive of good to the people. A stronger case of this description seldom, perhaps, if ever, presented itself, than that to which we have thus briefly alluded.

PHRENOLOGICAL SOCIETY.

SINCE the death of Dr. Spurzheim, a Society has been formed in this city for the purpose of investigating the grounds of Phrenology, and its claims to attention and belief. The Rev. Mr. Pierpont has been elected President; Dr. Barber, Professor of Elocution at Cambridge, Vice-President; Dr. S. G. Howe, Corresponding Secretary; and Mr. N. Capen, bookseller and publisher in this city, Recording Secretary. This Society contemplates the objects and is founded on principles that would have been most gratifying to the late lamented founder of the science. He explicitly stated, in private and public, that he desired no one to believe in Phrenology on his authority, or that of any other man or body of men. All he asked of his fellow men was, that each would examine the subject for himself, without prejudice or partiality, and abide by the result of his researches. He was confident that this course was not only the most proper and philosophical in itself, but that it would also tend, more than any other, to remove the false impressions too general respecting his principles of mental philosophy, and to ensure them the confidence and favor of the most able and intelligent of the lovers of truth.

Effects of Croton (Tiglium) Oil, employed externally and internally, as observed by Professor ANDRAL.—For some time past M. ANDRAL has been engaged in making many trials of the oil of croton tiglium, administered both internally and used externally. The following are the results of his observations on the effects of this potent medicine, externally applied.

Applied externally upon some spot of the skin, the oil of croton produces a slight smarting, and some hours after an eruption of a number of small red pimples, which become pustules, having much the appearance of variolous pustules, or of those produced by tartar-emetic ointment.

Four or five drops applied to an equal surface on the palm of the hand, cause a confluent eruption, of which some pustules are surrounded by inflamed areolæ, and occasion acute pain, which, however, passes away in four and twenty hours.

These experiments have been made on more than thirty patients, and the frictions instituted on the abdomen, in the armpits, and on the thighs, with from twelve to twenty drops, pure, or mixed with oil of sweet almonds, in the proportion of from ten to twenty drops of croton oil to one ounce of the oil of sweet almonds. Once there was observed to be three abundant evacuations following the frictions in a few hours. The progress of the eruption is as follows: at the end of from thirty to fifty hours all the pustules are developed, some of them confluent, and then there are seen large bladders filled with a whitish opaque liquid. The pustules continue to increase in size during three or four days, and then remain stationary; a little afterwards they dry, like the eruption of smallpox. If the spots have been numerous, the skin becomes covered with scabs, which desquamate slowly.

If the pustules are few and remain small, M. Andral says their desiccation takes place without the formation of any scabs. Generally, the whole disturbance ceases about the eighth or eleventh day. Once only the eruption wholly failed being excited; but it varies in intensity according to the number of drops of the oil employed, and according to the particular sensibility of individuals and the regions of the body submitted to these frictions. Five or six drops have sufficed in most cases to bring out a considerable eruption, but of small extent; with twelve or fifteen drops a confluent eruption may be produced, covering a great part of the abdominal parietes. In these experiments the number of drops has never exceeded twenty. On the skin of the face the eruption has always been considerable, both as respects the size and the number of the pustules.

At the close of this summary, 'La Lancette Française' reports many other cases in which the croton oil has been employed by M. Andral both externally and internally, and with complete success. These have been abridged in the 'Archives Générales,' and we shall make some extracts from the abridgment.

External Use. A man, aged fifty-four, who some time previously had erysipelas of the face and scalp, accompanied with adynamic symptoms, was admitted into La Pitié, towards the end of last October, with paralysis of the left side of the face: the affection was characterized by insensibility of the parts and almost total loss of sight, hearing, taste, and smell, still without there being any distortion or paralytic motion of the mouth. He was bled and purged, without benefit; but eight drops of croton oil being rubbed on the affected side of the face, caused a confluent eruption, and at the end of two days all the symptoms had disappeared, and the cure was complete.

A painter, aged forty years, who had undergone seven mercurial

courses, was seized, after a sexual debauch, with a paralytic affection of the muscles of the lip and of the right cheek, with numbness of all that side of the face, but without loss of feeling. A friction with eight drops of oil of croton was followed with a similar result to the preceding case, and in a few weeks the cure was complete.

A joiner, fifty years old, who had suffered with sciatica for about twenty years, which, although relieved often by oil of turpentine, still continually recurred, after one friction with the oil of croton was entirely cured in less than three days.

A laborer, forty-eight years of age, affected with a like ailment, which had lasted for four months, and which extended from the hip to the sole of the foot, used thirty-two drops of croton oil in four frictions, made at intervals of a single day, on the posterior part of the lower extremity, from above downwards. A very painful eruption followed these frictions, but the sciatic pains diminished even by the first friction, and disappeared, as if by enchantment, after the fourth.

Similar benefits were received by a woman, fifty-eight years old, and who was afflicted with a similar disease.

In two cases of chronic affection of the stomach, which had resisted ordinary treatment, frictions with oil of croton having produced confluent eruptions, acted like a powerful counter-stimulant, and restored the appetite, removed the pains of the stomach, restrained the vomitings, and so forth.—*London Medical and Physical Journal*.

Case of Treatment by carded Cotton.—The authors of the Bib. Univ. say that they guarantee the authenticity of the following case: A girl twelve years of age, who had enjoyed good health, was taken with measles, which did not acquire a full development. In a few months after, she was seized with pain in her limbs, and especially in the right knee. This was at first treated by leeches, &c., as a rheumatic affection, but without success. The inflammation of the limb and knee became terribly severe; abscesses were successively formed, and although their suppuration and lancing diminished the pain, the inflammation was renewed with increased intensity. Fomentations and a deep incision in the knee were resorted to without any advantage. This painful condition had continued five months, when it was resolved, in consequence of the success of Dr. Peschier with carded cotton, to make an application of it. The whole leg was enveloped with it. In a few days the suppuration became more free and abundant, the inflammation was sensibly diminished, the pains abated, and her sleep was more tranquil. In a few weeks the change was decided; and in three months, viz. eight months after the first attack, the girl was cured, except that the leg remained weak and stiff, which it was expected that the use of mineral waters would remove. It may be remarked, that before the application of the cotton, there had been some periods of amendment, but always followed by a relapse; whereas, after the first trial of the cotton, the healing went on with perfect regularity.

New Process for obtaining Morphine.—Ant. Galvani (Ann. delle Scienze, etc. Maggio et Giugno, 1831) describes a method of obtaining, directly from opium, morphine free from narcotine. He admits that his process is a modification of that contrived by M. Guillermond, apothecary at Lyons. It consists essentially of reducing, by evaporation, the alco-

holic solution of opium to the density of an extract, then by successive solutions and filtrations to separate from all the resinous matter of the extract, which causes the narcotine to be separated from the morphine. A prolonged ebullition with calcined magnesia, a succession of filtrations, washings and desiccations, produce at length very pure morphine, completely separated from all narcotine. With respect to the resinous matter, by dissolving it in dilute sulphuric acid, and decomposing the solution by potash, the narcotine is precipitated, and must be purified by treating it again with sulphuric acid and ammonia, filtering resolution in alcohol at 24 degrees, and crystallization. In making, with one pound of opium, five tinctures in alcohol of different degrees of strength, the author was enabled, by the foregoing process, to obtain from it eight drachms of very pure morphine.—*Amer. Jour. Science.*

Diabetes Mellitus.—A soldier had suffered dreadfully for five months from a thirst which he could not quench; from great dryness and heat of the surface, &c. The quantity of urine per diem exceeded fifteen litres. He was put on a diet of strong animal food; rubbed embrocations on the skin, used sulphureous baths, and had moxas, and cupping glasses occasionally applied over the kidneys. The quantity of urine was reduced to six litres in three weeks; and he found himself so much better that he refused to remain longer in the hospital. On analyzing the urine, much saccharine matter was readily detected, in the proportion of an ounce and a half of a thick honey-like fluid, in every litre of urine. Neither urea nor uric acid could be discovered; and the sulphates and phosphates were much diminished in quantity.—*Annales de la Médecine Physiol.*

Cherry-laurel Water in Cholera.—Dr. DUDON, of Batignolles, states that he has employed the cherry-laurel water externally, with much benefit, to relieve the epigastric pains which so frequently follow the vomitings in cholera. He makes an almond poultice, to which the cherry-laurel water is added, and, applying this to the seat of the pain, in a very few minutes the gastralgia almost always is completely relieved. He likewise proposes to administer the same medicine internally.—*Gazette Medicale.*

Oily Appearance of Dew.—Several gardeners in the environs of Rotterdam have observed, for some time, that the dew covering the leaves of plants in the morning, instead of being clear and thin as usual, has had an oily appearance, and sticks to the fingers. This change is said to have been simultaneous with the appearance of the cholera; and the question has been asked, whether it may not have been occasioned by the same atmospheric states which predispose to an attack of cholera.—*Gazette Med.*

Whole number of deaths in Boston for the week ending Jan. 5, 29. Males, 17—Females, 12.
Of apoplexy, 1—consumption, 3—convulsions, 2—croup, 2—debility, 1—infantile, 5—inflammation of the bowels, 1—intemperance, 2—jaundice, 1—lung fever, 2—mortification, 1—old age, 2—paralysis, 1—quinsy, 1—scarlet fever, 2—typhous fever, 1—unknown, 1.

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LOSS OF VOICE.

Cases of Aphonia, depending upon an Affection of the Head. By JOHN WEBSTER, M.D., Physician to St. George's and St. James's Dispensary, &c.

THE following cases of Aphonia, which, along with some others, have lately come under my observation, as well from the nature of the symptoms exhibited, as the mode of treatment pursued, are, I am disposed to think, worthy of notice ; particularly, as the nature and seat of such kind of affections have hitherto been generally viewed in a very different light from what it is intended, in the present paper, to investigate and explain.

In those individuals, there was principally observed a peculiar affection, amounting to an almost total loss of voice, without there being, at the same time, any decided proof of actual disease existing in the larynx or glottis—sufficient, at least, to account for the presence of all the symptoms.

Hitherto similar diseases, or extinctions of voice, as they are sometimes called, have generally been considered by physicians, as likewise by the patients themselves, to depend upon some affection in the larynx, the trachea, or other organs connected with the function of breathing. But from a detail of the symptoms characterizing these four cases, it will be satisfactorily shown that the loss of voice, in every instance, was occasioned, not by any disease in the organ apparently affected, but in reality to arise from a paralytic state of the nerves distributed on the larynx and glottis ; caused, in the first place, by pressure, or some other diseased condition, in the cerebrum.

That affections of the brain, and of the nerves proceeding from that organ, produce disease in distant parts of the human body, is a circumstance almost too well known to require any illustration, since, among other examples, it is seen daily occurring in paralysis, and the like complaints. Nevertheless, to point out how frequently the organs of respiration, and of the voice, are affected by diseases in the cerebrum, and which consequently are sufficient to derange the functions of the nerves proceeding to particular parts of the body, will not be altogether foreign from the present investigation : on the contrary, it appears particularly appropriate, and may serve to explain the point now proposed to be established.

Thus, apoplexy produces stertorous breathing, with a partial and often a total loss of speech. Hydrocephalus, occurring in children, is fre-

quently accompanied by a croaking kind of sound in the voice, or a spasmodic affection in breathing ; and further, in a paper on Hooping-cough I published some years ago in this Journal, it was demonstrated that congestion in the bloodvessels of the brain, and effusion of serum in the ventricles or on the membranes of that organ, which are so commonly observed in the dissection of those dying by this complaint, materially tend, during life, if not to produce, at least to increase in violence and frequency, the fits of coughing and sickness pathognomic of pertussis. Should this opinion still be considered hypothetical, it must, however, have some weight to know that the treatment then recommended, namely, leeches to the forehead and blisters behind the ears, is generally so successful as to cure the patient with certainty and expedition.

Other arguments might be advanced to prove the influence affections of the head have upon the organs of respiration ; but it appears almost unnecessary further to explain the action which a diseased condition of the brain and nerves exerts on these organs, and on the voice : more especially since the nervous influence must be the same on these as on other parts of the human body. For, should there exist an affection of that part of the cerebrum, from whence the nerves distributed on the glottis and larynx arise, the functions of that organ must consequently be disordered, or perhaps destroyed ; at least, so long as any diseased action, or interruption of function in the nerves, continues : much in the same way as disease of the spine paralyses the bladder, or suspends the motion of an extremity.

Hitherto, reasoning upon such physiological principles has been often overlooked by medical men ; and, from inattention to this point, I have been led, in cases similar to those now detailed, totally to neglect the circumstances just mentioned, and instead of considering complaints like the present as depending upon a diseased condition of the brain and nerves, such losses of voice were thought to arise principally, if not wholly, from an affection in the larynx or glottis itself ; to which parts, consequently, the remedies formerly employed for their removal were chiefly, and, as it was then believed, properly directed.

But the views intended to be explained on this subject will, perhaps, be better understood by considering the history and symptoms of the cases subjoined ; especially if we take into consideration the effects of the treatment pursued, in consequence of the above reasoning, which is founded upon the conclusions come to in regard to the actual seat and nature of the complaint ; viz. that the loss of voice in these individuals depended upon a paralytic condition of the larynx and glottis, in consequence of derangement of the nervous influence distributed to the parts affected, proceeding from an affection of the brain and nerves—but not, as is commonly supposed, arising from any disease really existing in the larynx or the glottis, as the organ of voice.

CASE I. George Wright, æt. sixteen, groom. When first seen, this patient had an attack of bronchitis, which was, however, soon removed by the exhibition of demulcent and aperient medicines, and the application of a blister to the chest : on the 14th of January last, he was considered free from all pectoral complaints.

Nevertheless, at this period an affection or weakness of voice showed itself ; and, on the 16th, it became so remarkable that Wright could only with the greatest difficulty make himself heard by the bystanders, being scarcely able to speak, even in the lowest whisper. Notwithstanding the presence of this symptom, he did not complain of any pain in the throat or chest, nor was there any dyspnœa ; but the patient now for the first time mentioned that he had a severe headache, accompanied by drowsiness and deafness ; and, on examining the pupils of both eyes, they were observed to be very much dilated, and almost insensible to the influence of light. It was from these circumstances that attention was especially directed to the cerebral symptoms, which ultimately led me to consider this affection of the head to be, in reality, a principal cause in producing loss of voice in this individual ; and subsequent investigation, confirmed by the successful treatment adopted, demonstrated the correctness of the pathological views then entertained.

Five grains of the extract of conium were given at night, followed by an aperient in the morning ; and a demulcent medicine was also ordered to be taken, twice or three times a day.

Little or no benefit, as might be expected, followed this mode of treatment : on the contrary, the loss of voice still continued, and it was latterly so much affected that the patient sometimes could not articulate a single word ; the air during these efforts to speak appearing to pass through the rima glottis, as if he were blowing a musical instrument, without a note being produced. It also merits observation, that if any alleviation of the pain in the head occurred, and especially if, at the same time, the pupils became less dilated, and were sensible to the impression of light, the voice invariably became stronger and more distinct ; thus showing that the condition of the brain, and consequently the function of the nerves distributed on the larynx and glottis, was materially concerned in the disease ; and, therefore, it appeared this affection of the head must first be removed, in order to restore the natural tone and strength of the voice.

In accordance with the above reasoning, a blister was applied to each temple on the 24th, which discharged freely ; and the patient, when seen on the 26th, was found to have materially improved : the headache was almost gone, excepting over the right eye ; the pupils appeared less dilated, and sensible to light, and the words, when speaking, could now be more distinctly articulated, although still in a low tone. The countenance likewise looked clearer, was not so anxious, and, to use the patient's expression, 'he felt almost quite well,' excepting the continued weakness of his voice.

Extract of conium, which had been taken for the last two nights, was continued, and an aperient mixture prescribed in the morning ; at the same time, more nourishment was allowed, as the appetite and digestion had improved. On the 28th, the patient felt considerably better : the pupils contracted when exposed to a strong light, and the deafness and headache were almost removed ; whilst the tone of the voice was nearly natural, and he articulated words correctly, although not strongly. A week afterwards, he had almost recovered his usual voice, had no head affection ; and, when seen for the last time, in the middle of February, he was convalescent.

CASE II. Mrs. Ellis, æt. twenty-one, married, but without children. On the 15th December last, Mrs. E. first consulted me as a patient, when she was affected by hysterical dyspeptic complaints, a slight cold, with an occasional cough ; which, nevertheless, became one night so severe, that, in the violence of the attack, some slight streaks of blood were observed in the frothy expectoration. The bowels were costive, and the appetite impaired ; but at this date there was not any affection of the head, and the voice was perfectly natural.

Camphor mixture, peppermint water, with aperients, were exhibited ; and, after a few days, a blister was applied to the lower part of the chest and epigastrium. By these means the patient's health became much improved, her spirits got better ; and although there was still an occasional cough, she was altogether relieved, and considered to be nearly convalescent. At this period, extract of hyoscyamus was ordered at night, and decoction of bark added to the antispasmodic mixture.

Early in January last, the voice was observed to be weak ; but as she was then thought to be only affected with a common hoarseness, very little attention was consequently at first directed to the circumstance. However, on the 12th of the month, the voice became so feeble that even a single word could with difficulty be articulated. There was no pain of the throat, and she was free from dyspnœa : but she now first complained of being deaf, with a feeling of noise in the ears, and considerable headache, occasionally accompanied by giddiness ; and on examining the pupils of both eyes, they were found to be very much dilated, and nearly insensible to light ; whilst, on inquiry, it was ascertained that at night she could with difficulty see by the light of a candle, being then, in fact, nearly blind.

At this stage of the disease, an aperient medicine was exhibited in the morning ; afterwards decoction of bark with sulphuric æther, and extract of conium at night. By continuing these remedies for a few days, Mrs. Ellis improved a little in her general health ; her voice appeared somewhat stronger, but it soon again became as weak as before, and could scarcely at last be heard ; the pupils were anew dilated, along with dimness of sight, whilst the noise in the ears, and other head symptoms, already mentioned, again returned. In consequence of these circumstances, on the 2d of February a blister was applied to each temple, and a brisk purgative ordered at night, with a demulcent tonic mixture morning and evening.

The blisters discharged freely ; after this, extract of conium and squill were given at night, and an aperient draught in the morning, to be repeated when found necessary. About a week after the application of the blisters, all the head symptoms were nearly removed, and the voice had almost recovered its natural tone and strength ; the pupils appeared to be scarcely affected, and the patient could see to read or work by candle-light ; in short, she was considered all but convalescent. On the 12th of February Mrs. Ellis was free from any affection of the voice, and she therefore reported herself quite recovered.

The two following cases occurred some months subsequent to the preceding : they are of a similar character, were successfully treated in

the same manner, and they fully confirm the views then entertained regarding the nature of this peculiar affection. The symptoms are related with more brevity, as any lengthened account would be superfluous, and is, indeed, not required to elucidate the subject. One remark, however, will not be here out of place: the two first cases occurred in winter, the latter during the warm weather of summer.

CASE III. Dinah Swales, æt. twenty-eight, single; 7th June, 1832. Is of a full habit of body, and has had occasionally hysterical dyspeptic complaints. For the last ten days, has been affected with pain in the head, vertigo, and dimness of sight, at which period she began to lose her voice. At present, she can scarcely articulate so as to be heard, but has no pain of throat or dyspnœa. The pupils are dilated, almost totally insensible to light, and she cannot always see distinctly; besides noise in the ears when flushed by exertion, she feels a throbbing at the temples, whilst the voice totally fails, and she is then almost obliged to express herself by signs. Tongue white; bowels open; pulse soft; skin natural; catamenia regular; feels dyspeptic, and complains occasionally of flatulency. For these complaints, in the first instance, she took compound rhubarb-pill at night, with an aperient demulcent mixture, also containing camphor, morning and evening. Guided by the experience of former cases, on the 9th four leeches were applied to the forehead, and a blister to each temple at night; which remedies acted properly. Next day, there was evidently less dimness of sight, the left pupil was not much dilated, and the noise in the ears and vertigo were considerably diminished. The tone of the voice sounded decidedly stronger, and the articulation of words was more distinct; the appetite was now good, the bowels open, and there scarcely existed any dyspeptic symptoms.

The voice continued daily to improve, as likewise the sight, unless she was heated by exertion, when these symptoms were always observed to become worse. As the patient, in consequence of exposure to the cold on the 14th, had a slight cough and expectoration, compound squill pill, with an aperient demulcent mixture, were prescribed, whereby these symptoms were quickly removed. On the 16th, the tone of the voice was improved, the patient felt nearly free from any complaint in the head, and had no affection of the sight, unless she was hurried or fatigued; under which circumstances the voice became decidedly weaker. For these reasons, a second application of blisters to the temples was advised, and the aperient demulcent medicines were continued. When next seen, on the 21st June, the blisters, it was reported, had discharged freely, and the patient was now entirely free from any head symptoms, whilst the sight and voice were perfectly natural; she was in fact convalescent, and it has since been ascertained there was no return of the complaint.

CASE IV. Mary Joyce, æt. forty, single; 11th June, 1832. Is of a spare habit of body, and generally in the enjoyment of good health. About a fortnight ago, she began to lose her voice, whilst, at the same time, she complained of pain in the head, giddiness, noise in the ears, and dimness of sight, but felt entirely free from any pectoral complaints, and has not been low-spirited or hysterical. At present there is no dyspnœa, pain in the throat, nor any other symptom indicating an affec-

tion of the organs of respiration, excepting that the voice is exceedingly weak, sometimes scarcely audible ; she complains, however, of pain in the forehead, over the right eye, along with the other symptoms described as having first appeared a fortnight ago, and the pupils are dilated. Tongue is rather foul ; but the bowels are open, and catamenia regular.

Thinking it would be advisable, in this case, first to try the effect of leeches, without blisters, six were accordingly applied to the centre of the forehead, in the same manner as I formerly recommended, with so decided advantage, in whooping-cough ; at the same time, an aloetic and rhubarb pill was ordered night and morning. As the leeches did not bite properly, not much blood was extracted : however, the head next day felt less painful, the sight was improved, and the tone and strength of the voice seemed augmented ; nevertheless, the pills were ordered to be continued, and six more leeches to be applied, as before, to the forehead.

The second application of leeches was followed by considerable loss of blood ; and on the 17th of June all complaint in the head had vanished, whilst the voice was strong, and perfectly natural ; so much so, that the patient was discharged a few days afterwards convalescent.

Similar instances of extinction of voice are by no means uncommon ; indeed, every medical practitioner must have met with them repeatedly in the course of his professional experience. Generally, however, such complaints have been treated by remedies more immediately directed to the throat and parts adjacent, since these structures were apparently the seat of disease. Like other physicians, I have also formerly pursued this plan of treatment, when certainly it proved, in the generality of cases, both tedious and unsatisfactory, unless in individuals where there was actual disease in the larynx or neighboring parts ; then the commonly-followed method of cure should be recommended. But, judging from the details now given, and supported by other examples, which it is unnecessary and would be tedious to relate, we may fairly conclude little difficulty will henceforward be encountered in treating affections of the voice, wherever any cerebral symptoms accompany the complaint, constituting a peculiarity doubtless of much more frequent occurrence than many are perhaps disposed to suspect, in consequence of similar symptoms being either overlooked, or not thought to be of sufficient importance to merit attention.

To illustrate the great influence affections of the brain have upon the voice, reference might be made to what occasionally occurs in public meetings ; where individuals, after considerable exertion in speaking, or from mental excitement, will sometimes lose their voice entirely, and even suddenly, so as to be obliged to stop in the middle of a speech. Intoxication, fear, and strong mental impressions, will likewise deprive the person so affected, sometimes, of the power of articulation. And if such transitory cerebral influences can thus act upon the voice, it will surely, without much hesitation, be granted, that severe affections of the brain, or a more permanent disorder in the functions of the nerves distributed on the larynx and glottis, would produce similar, if not greater effects.

Anatomically considered, it will be admitted that any affection of the

recurrent and internal laryngeal nerves must materially influence the voice ; as these nerves constitute the chief agent or moving power of that function. And we know, if any tumor press upon the above-named nerves, during their course, from the superior and lateral part of the medulla oblongata, to their distribution on the larynx and parts adjacent ; or if these nerves should be cut by accident, or in experiments, the voice then becomes affected, or even destroyed. If such evident causes have so decided an effect upon the voice, other, or more temporary, may likewise produce similar results. At all events, these considerations should not be overlooked ; as a paralytic condition, or any disease of these nerves, may as likely exist, as in those of the eye, the taste, or of motion. From these views, the propriety of cupping on the nape of the neck, and the application of blisters there, and to the occiput, in addition to the mode of treatment above detailed, appears evident ; and in some cases certainly these means ought to be employed, since undoubtedly they must prove efficient and advantageous.

A late celebrated physician once said, 'the brain, and the various diseases to which it is liable, is like a terra incognita, and scarcely understood.' Since that time, much has undoubtedly been done by medical inquirers to advance our knowledge of this most important branch of pathology. Still there remains a great deal to be ascertained, so as to be able to clear up some points that are yet but obscurely explained ; and, without wishing to attach more importance to the present subject than it really deserves, it does certainly appear that a diseased condition of the brain, thence affecting the functions of the nerves distributed on particular parts of the body, has more influence in producing complaints like those above described than we are sometimes disposed to allow. Should, therefore, the cases just related, and the few accompanying although imperfect observations, prove the means of inducing others to make further inquiry on this subject, so as to confirm more fully, or even to refute, the propositions now advanced ; whilst one of the objects had in view, when drawing up this communication, is thereby gained, our knowledge of an interesting class of affections will be, under any circumstances, both improved and extended.—*London Medical and Physical Journal*.

EPIDEMIC MILIARY SWEATING FEVER.

On an Epidemic Miliary Sweating Fever, which raged in the Department of the Oise. By Dr. MENIERE.

ON the 9th of May, the Minister of Commerce and of Public Works was informed by the authorities of the department of the Oise, that a number of the districts were afflicted with an epidemic disease ; and they requested that physicians might be sent to investigate its nature. The intelligence and petition were transmitted the same day to the Dean of the Faculty of Medicine. On the 10th Drs. Orfila, Pinel-Granchamp, Hourmann, and Menière, set out for Beauvais, where the physicians and magistrates gave the requisite information. The disease proved to be the Miliary, or Picardy sweating fever, which had been observed in these localities several times before, and remarkably so in 1821.

It broke out in the last week of April, or first of May, and was very mild, as, out of 84 patients, none had hitherto died. Its progress was noticed to be much arrested by cold weather. In some places its invasion was quite sudden after a storm, during which the thermometer rose considerably; and more than one half of the inhabitants of a village were thus seized in the course of one night. Females were more disposed to it than males. The disease commences with headache, sweating, and dyspnœa; the skin then becomes red and very hot, and there is a most troublesome pricking sensation in the surface. No local pain; pulse full and soft. The dyspnœa appears to depend on a congestion of blood in the lungs and heart, and not on any weakness of any of the exterior respiratory organs: the plethora of the heart and large vessels is indicated by the ventricular pulsations being diffused, heavy, and slow, with little sound on auscultation. There is a distressing feeling of a choking weight in the præcordial region, and sometimes also in the epigastrium; the pulsations of the celiac artery are so strong as to heave up the abdominal parietes, and cause most obstinate gastralgia. The sweating is often prodigiously great, patients being obliged to change their shirts 20 or 30 times in the course of one night, and this 'flux' continuing to the like extent for two or three days. Its odor was that of rotten straw, or of a weak solution of chlorine, or of the evacuations of the cholera morbus. The watery halitus from the skin is kept rarified by the heat of the bed-clothes; when these are removed it is condensed, and forms a thick cloud, which speedily resolves itself into a sort of rain. The bowels are usually constipated, and the urine is scanty. The sweating lasts sometimes for four, five and six days, and it ceases gradually without the substitution of any other critical evacuation, or the occurrence of other symptoms; but in the majority of cases, a vesicular eruption on the chest, neck, back, and successively over all the body, appears on the second, third, or fourth day. It varies exceedingly in different patients: the vesicles are usually of the size of millet seeds—here and there a few larger ones are scattered. In the early stage the rash appears papular; when it dies away, the part is found covered with furfuraceous scales. The average duration of the fever, from its onset to the recovery of the patient, is from 8 to 14 days. The symptoms demanding most attention are those of congestion in the head and chest; threatening, in the one case, delirium and apoplexy—in the other, hæmoptysis and fatal dyspnœa.

The miliary epidemic of this year differs, in several important respects, from former eruptions of the disease; and it seems to have received a certain stamp from its more formidable brother, the cholera morbus, which exists at the same time in the same villages and districts. In the stead of the thoracic and cerebral symptoms, diarrhœa, vomiting, and gastro-enteric irritation, have frequently taken their place, and have carried off many of those affected with them. At Noailles, the chief feature of the epidemic was the cerebral congestion; while at Caucigny, only one league distant, it was congestion of the lungs, causing death sometimes in the space of a few hours. There was no obvious difference in the topography of these two places to explain this diversity of character. In 1821, the disease raged severely at Caucigny; there

were 23 deaths, most of which were caused by the slow developement of gastro-enteritic disease : in the present epidemic, death takes place at the very onset of the disease, or at the time of the miliary eruption, the patients suffering dreadful anxiety and distress at the præcordial region—racking pains and spasmodic stiffness of the back : sometimes they vomit, or rather hawk up, much frothy blood. At Chateau Rouge, many cases of what the French denominate ‘*la suette exquise*,’ that is, the sweating fever without any miliary eruption, were seen. In several patients, who were in a state of convalescence from the epidemic, symptoms of typhoid fever, such as stupor, emaciation, red patches on the belly, pulse frequent and soft, tongue red, and rough in the middle and towards the base, breath fetid, &c. supervened. From comparing the reports from 24 different districts in Picardy, it appears that, in the course of two or three days, not fewer than 5000 persons were seized with this epidemic disease. Many opinions have been offered to account for the frequent appearance of the miliary sweating fever in ancient Picardy ; the miasmata of marshes and bad nourishment have been chiefly insisted upon, but we think incorrectly, as most of the patients were living in healthy dry localities, well housed, fed, and clothed, and frequently in affluence and ease. With regard to the occasional or exciting cause, there is little discrepancy of opinion : the elevation of temperature, and an electrical state of the atmosphere, have generally preceded the appearance of the malady. The miliary epidemic is fully as capricious in its course and career as the cholera ; places being spared in the very line of its advance. It is certainly not contagious, as announced by the older authors.

Treatment. Formerly, when the disease was considered to proceed from a leaven, or poison, contaminating the blood, the efforts of the physician were directed to favor the expulsion of the peccant matter by sudorifics, cordials, warm ptisans and heavy bedclothes. Boyer, Tessier and others, about the year 1773, introduced quite an opposite plan of cure. Venesection at the onset of the malady, mild tepid drinks, small doses of hypnotic medicines, and the very gentlest revulsive applications to the feet and hands, such as bathing them with mustard water, are most proper ; in short, whatever encourages the breaking out of the rash, which generally is accompanied with relief. Mild aperients are always useful. When symptoms of congestion in the lungs or head occur, more active depletion and counter-irritation must be immediately adopted. We must be on our guard however not to lower our patient too much, as there is a strong tendency in this disease to nervous collapse. Whenever the eruption appears, the treatment ought to be limited to the mere regulation of the diet, &c. Many patients who have been bled at this period for dyspnœa, have rapidly sunk. The greatest care is necessary during the convalescence to prevent a relapse ; every excitant, or irregularity, must be studiously avoided.—*Archives Générales de Médecine.*

INFLUENCE OF OCCUPATION ON HEALTH.—NO. VII.

[Communicated for the Boston Medical and Surgical Journal.]

CLASS IX.—*Occupations injurious by the gases evolved in human respiration and combustion.* It is a fact too familiar to require proof, that the air which has once entered the human lungs is no longer in a state fit for sustaining life. A human being, inclosed in a certain limited portion of air, as an air-tight room for instance, would soon begin to experience an uncomfortable sensation from the atmosphere around him becoming mixed with the impure air emitted from the lungs. This sensation gradually increasing, respiration would be continually rendered more difficult, and become at length absolutely impossible. It is found by accurate experiment, that 300 cubic inches of air can be breathed but 35 times, or but little more than one minute, before it produces the symptoms of suffocation. The horrible consequences which have resulted from actually crowding human bodies together in close rooms, are sufficiently well known and need not be repeated. But it is not by these violent effects that the influence of insufficient ventilation is ordinarily recognized. The class perhaps which suffers most from the effects of confined air, is that of miners. In the vast regions excavated for coal in England, the external air enters slowly and with difficulty to take the place of that which is generated by the respiration of the inhabitants; and the more so, as the carbonic acid gas which is evolved, descends by its specific gravity, and does not pass out into the external air. The injury thus produced, however, is less felt in the lungs than it is in the system generally. The blood not being duly acted upon by the air, becomes vitiated and impure; the body is imperfectly nourished, its volume and strength diminish, and a general languor and debility ensue. These effects, however, are not suddenly manifested; and many continue to work in mines for years, before any obvious effect is produced upon the health.

But it is not necessary to descend below the surface of the earth to meet with a vitiated and corrupt atmosphere. Wherever a large number of persons are collected in rooms imperfectly ventilated, the air soon becomes unfitted for respiration, and incapable of carrying on properly the vital functions. The evils arising from imperfect supplies of fresh air in working apartments, are the less noticed, because the system soon becomes accustomed to the sensation, and we then breathe the unwholesome fluid which surrounds us with the same freedom as we should inhale the mountain air of the finest country. In this state of things, it is not so much the presence of any poisonous gas, as the absence of the oxygen, which forms the vivifying principle of the atmosphere, that does the mischief. Accordingly we find that, as in the case of the miners, the immediate effect on the lungs is by no means apparent; whereas, the gradual weakening of the blood, which is deprived of the nourishment that should impart to it health and richness, soon becomes manifest. The digestion is impaired, the strength diminishes, the skin acquires a sallow and dirty hue, and all the motions are performed with languor and debility. This view of the effect of breathing impure air,

has been particularly insisted on by a writer in the *Edinburgh Medical Journal*, Mr. Watson, Surgeon, Wanlockhead. From his paper, published in the CVI. Number of that periodical, we select the following facts and observations.

‘In the year 1823, sixteen men were employed, during four months, in a mine where the deficiency of air was so considerable, that a candle would not burn for any length of time, except when the wick was made so open as to allow the greatest possible quantity of air to come in contact with the ignited part. The candle was placed generally in a sloping position. Notwithstanding the deficiency of air, none of the miners had any inflammatory complaints, but all complained of lassitude, debility, and drowsiness, particularly toward the end of each day’s work, sixteen hours ; and they all became gradually paler in the complexion.

‘In 1824, an equal number of men were employed in the same mine with nearly the same result. Thirteen were quite free from any particular complaint,—one complained for a few weeks of a slight pain in the stomach,—the other two for a few days of pain in different parts of the body from obstructed perspiration.

‘In 1826, sixteen men were employed five months in a mine where the quantity of air was still smaller than in the former ; still the miners were free from any particular complaint. Only one complained of shifting pain from improper exposure when perspiring freely. In 1827, the same number of men were employed in the same mine for four months, and all remained free from complaint. Reasoning, then, from analogy, it seems fair to conclude, that a person placed in a medium where there is a considerable deficiency of oxygen, must become less liable to inflammatory action, and that this non-liability will be in direct ratio to the length of time he is confined in such medium. At least, this is no speculation founded on mere conjecture, but supported, in my opinion, by facts which have come under my own observation. From these, I draw the following inferences :—1st, That miners are not more liable to inflammatory complaints than any other class of the community. 2dly, That a majority of them, at least in this district, remain free from any particular affection of the chest. 3dly, That hydrothorax among miners is rather a rare disease, only two cases having occurred to me in the course of fifteen years’ practice.’

From this view of the subject, then, it would appear that the effect of this and similar occupations is to diminish the activity of all the vital processes, to induce debility and lassitude, to check the process of assimilation, and thus to impair the tone and vigor of the system, without inducing specific disease.

Nearly allied to the gases produced by respiration, are those which result from the process of combustion. Indeed the analogy between these two processes is too striking to be passed over in silence. The oxygen of the atmosphere, which unites with and vivifies the blood, is the same principle which maintains the fire that warms and the lamp that guides us. A constant supply of air is equally necessary to both processes ; the atmosphere is with equal certainty vitiated by both ; and the gas most constantly produced by the one is the principal product of the other. Combustion is the rapid union of the combustible body

with oxygen, attended with the evolution of light and heat ; and the combustible element, which is common to the different substances employed as fuel, is carbon. We have then to consider this substance in its combination with oxygen, together with any other ingredient of our ordinary fuel which by combining with this gas produces a compound capable of acting on the human system.

Where any kind of fuel is burned without a proper outlet for the vitiated air, the carbonic acid evolved will act as a poison on those within the apartment. The reason why this effect has principally been noticed in charcoal, is that this substance, consisting of nearly pure carbon, burns without smoke or smell, and therefore its exhalations can only be perceived by their effect, that is, when too late to control them. It is on this account that charcoal is so often rashly burned in close apartments presenting no outlet for the air ; whereas, the same experiment tried with wood or sea-coal would at once render obvious the necessity of ventilation.

The contamination of the air by human respiration contributes to enhance the ill effects of all those trades which are carried on in crowded and artificially-heated rooms, into which the external air is not allowed freely to enter. The most unhealthy apartments I have seen, from the mere circumstance of confined air, are some of those occupied by shoemakers. The remedy is as obvious as the evil itself is manifest. The use of high and large apartments, where the employment requires any considerable number to be collected ; the establishment of a constant current of air, from a door or window to the fire in winter, or between windows in summer, so as to traverse the greatest possible extent ; and the free admission of air during the intervals of work, whenever circumstances permit, are measures of obvious utility, and will certainly effect the object proposed. I repeat that it is dangerous, in judging of the purity of the atmosphere in an apartment, to trust to the sensations experienced after being long exposed to it. In this, as in many things, the first impression is more likely to be correct than any subsequent judgment. There is nothing so much under the dominion of habit as the mere sensation conveyed by a state of atmosphere. An *odor*, which at first is intolerable, soon becomes less offensive, and shortly after a matter of indifference ; so that we entirely forget its presence till the entrance of a stranger, or our own return to the apartment after a certain absence, recalls it to our remembrance. One of the first effects of confined air, to one not accustomed to its influence, is headache. This effect is but temporary, and disappears after continued or repeated exposure. The cause, however, continues to act on the system, and sooner or later its effects will be manifest and unequivocal.

A RAY OF LIGHT ON THE CAUSE AND THE CURE OF CHOLERA.

[Communicated for the Boston Medical and Surgical Journal.]

MR. EDITOR,—In the last number of your Journal I saw a notice, taken from the London Medical Gazette, of the extraordinary and *oily appearance of the dew* on the leaves of plants in the neighborhood of Rotterdam.

On examining the dew in the early morn, it was found by several gardeners to be of an oily nature, instead of thin and clear, as it usually is, and to adhere somewhat to the fingers. This very remarkable change is said to have been simultaneous with the appearance of the cholera, and is attributed to some atmospheric peculiarity. In themselves, the above facts are of very great importance, and should be noted by the philosopher for future thought and investigation. My wish, however, at present, is to bring them up to the view of the profession, in connection with the fact recorded in a number of your Journal last summer (No. 5, Vol. 7) of *an oily appearance in the blood of those who died of cholera*. The record is contained in one of the interesting letters with which you favored your readers from Dr. Martyn Paine, of New York. Dr. P. states that he himself saw this phenomenon in two post-mortem examinations that he witnessed at the Crosby Street Hospital, and that the same appearance had been previously noticed in many other cases of cholera subjects, by Dr. Gale, of that city.

A third fact, with which the two above stated should be connected, is the professed and probable efficacy of *alkaline* medicine, as a preventive of the cholera, or as a cure for it. In this last case, i. e. when prescribed as a cure, attempts have been made to introduce it into the blood by the usual routine, or it has been introduced by direct injection into the veins.

These *three facts* may be wholly unconnected with each other. But allow me to ask, if even so feeble and uncertain a ray of light should be lost on a spot so clouded and dark as either the cause or the cure of the cholera? There is a possibility, surely, that the same peculiarity in the atmosphere caused the oily deposit on the leaves and in the blood; that this oil it is that acts as a virulent poison on the animal system; and that if it can be effectually and seasonably decomposed by an alkali, the system may be saved from its deadly effects. That these things are so, I will not affirm a belief, for I am no enthusiast: that, however, they are enough to *favor the opinion* that the use of alkaline draughts during the prevalence of the disease may be a means of prevention, and their safe and cautious introduction into the blood the most effectual mode of cure, I must affirm, for I am

AN OBSERVER OF FACTS.

January, 1833.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JANUARY 16, 1833.

THE readers of this Journal should be apprised that several of the medical gentlemen, who have contributed most largely to its pages, are now devoting that time to *lecturing* which has heretofore been employed in preparing communications for us. We have also the pleasure of apprising them that when the usual term of lecturing is over, we have the as-

surance that their labors in behalf of this Journal and its readers will be resumed. Many thanks are also due to other correspondents whose valuable contributions have recently so much enhanced the interest and usefulness of our periodical, and a continuance of their favors is confidently relied on.

LUNATIC HOSPITAL AT WORCESTER.

THIS Institution, designed for the reception and care of the most unfortunate and abjectly miserable class of our fellow beings—for such lunatics as are now confined in any gaol or house of correction in the Commonwealth, under any order, decree, or sentence of any court or judicial officer—is now organized by the designation of all the proper officers, and the establishment of rules for its future government. The building that has been erected at Worcester, at the noble behest of a munificent legislature, is ready for the reception of its destined inmates; and we may shortly look for the gubernatorial proclamation that will direct the time and mode of their removal from their present inappropriate places of confinement.

Spacious as this edifice is, it is most probable that it will be forthwith filled by insane persons, and that, ere long, it will require to be extended in order fully to accomplish the humane purpose for which it was designed.

QUININE—HOW OBTAINED.

THE high price of this article is a great obstacle to its general introduction into practice; and there is little prospect, at present at least, that it can be afforded for less than it now is. The bark from which it is extracted yields but one fortieth part of the alkali; so that for a single ton of useful matter, forty tons of the cinchona must be transported across the Atlantic: hence the great expense attending its manufacture. Under these circumstances, the only effectual method of reducing its price is to manufacture it in the native region of the raw material. Why this has not already been done, we know not; but it is evident that any one who should undertake it, would command the market of the whole world. The subject is worthy of attention.

Medical Application of Maternal Sorrow.—M. Double—whose name must be familiar to our readers as that of an eminent physician in Paris—had lately occasion to read a memoir to the Academy of Sciences, in which he mentions the following circumstance as having first directed his attention to the sounds of the heart. Many years ago, when he was taking leave of his mother, she laid his head upon her bosom and wept in an agony of maternal grief at parting with him: but her philosophic son was otherwise employed the while. He was struck with the distinct manner in which he heard the beating of her heart and the convulsive sobs of her breathing—he listened to every sigh as illustrating the principles of acoustics—and hence he assures us the origin of the mode of examining

into diseases of the chest by auscultation, now so generally adopted. M. Double evidently thought the anecdote redounded to his credit ; but we fear he will look in vain for any compliment on the score of feeling—truly his *sang froid* was indeed *cold-blooded*.—*London Medical Gazette*.

On the Exhibition of Opium in large Doses in certain Diseases.—The second No. of the Dublin Journal of Medical and Chemical Science, contains some interesting remarks by Dr. Stokes on this subject. From the facts he has recorded, he deems the following conclusions justifiable.

1st. That in certain cases of inflammation of serous and mucous membranes, where depletion by bloodletting, or other antiphlogistic measures, are inadmissible, and the system in a state of collapse, the exhibition of opium has a powerful effect in controlling the disease.

2d. That under these circumstances the remedy may be given in very large doses, with great benefit and safety.

3d. That its effect then is to raise the powers of life, and remove the local disease.

4th. That the poisonous effects of opium are rarely observed in these cases ; the collapse and debility of the patient appearing to cause a tolerance of the remedy.

5th. The cases in which the utility of this practice has been ascertained are as follows :

Simple peritonitis, in a stage where bleeding cannot be performed. Low puerperal peritonitis. Peritonitis from perforation of the intestine ; from the opening of an abscess into the sac ; or lastly, after the operation of paracentesis in debilitated subjects. Violent diarrhœa, supervening in exhausted subjects. Phagedenic ulceration of the throat, in similar individuals. And cases of chronic gastritis, and gastro-duodentis in patients exhausted by the long continuance of the disease.

6th. The cases in which this mode of treatment would be probably useful are—peritonitis from rupture of the bladder or uterus, traumatic rupture of the intestine, or after the operation for strangulated hernia.

The last observation which I shall make here is, that in most of these cases, particularly in those of diseases of serous membranes, wine was given in conjunction with the opium, and in all the patients were supported by a lightly nutritious diet.

Case of Cholera Infantum cured by Lunar Caustic. By JOSEPH C. SKINNER, M. D., of Hertford, N. C. (Communicated in a letter to Dr. Darrach.)—My daughter Cornelia, æt. seventeen months, was attacked about the middle of June, 1829, with the usual symptoms of cholera infantum, the most prominent of which were the following : occasional vomiting, particularly when any fluid was taken in the stomach ; the matter ejected was sometimes tinctured with bile, but more commonly it was merely the fluid taken in the stomach ; the bowels were exceedingly irritable, the evacuations copious, frequent, and very offensive ; sometimes of a clay color, at other times resembling coagulated milk ; fever of a remittent form ; skin hot and dry, &c. These symptoms commenced gradually and increased in severity daily until they became alarming. On examination of the mouth, I found the gums tumefied, and four molares making their way through, which was believed to be the exciting cause of the train of symptoms which I have described.

In the treatment of the case, my first object was to remove all sources of irritation ; accordingly the gums were freely scarified, and the bowels well purged with calomel and calcined magnesia and injections of common salt and warm water. This practice was steadily adhered to for several days ; but failing to produce the desired effect, and symptoms of prostration fast approaching, the pulse indicating a great degree of debility, and the fever assuming a more decided remittent type, indicating the influence of miasmata, I deemed it necessary to resort to tonics and stimulants. Accordingly I gave the patient half a grain of sulphate of quinine, with three grains of prepared chalk every two hours, and the sixth of a grain of opium every twelve hours, occasionally using an injection of melted fresh butter when the bowels were painful, a practice which had been remarkably successful in my hands in similar cases. In a few days I had the pleasure to witness the happy results ; the patient seemed nearly convalescent, but owing to the extreme hot weather and some little error in diet, the disease returned and very shortly assumed a chronic form. The same treatment was pursued with the addition of brandy and port wine, but with little or no effect. The disease gradually advanced, the patient became more and more emaciated, and all the symptoms more aggravated, until the 10th of September, when her situation became exceedingly alarming. The bowels were exceedingly irritable, the skin hot and dry, the tongue thickly incrustated with a whitish fur, the thirst insatiable, eyes thrown back, and apparently insensible, a profound stupor supervened, and the mouth kept steadily open. On examining the evacuations from the bowels, I discovered small portions of what I believed to be the internal coat of the intestines. In this state of things my hopes all vanished, and I was about to give up my little daughter into the hands of its Creator ; but recollecting the utility of lunar caustic (nitrate of silver) in severe cases of aphthæ, I determined to give it a trial in this case. Accordingly I dissolved one grain in a teaspoonful of the mucilage of gum arabic, and gave her one every four hours. After she had taken three portions I perceived the most happy effects about to take place, which inspired me with confidence in the remedy and a consequent determination to persevere, gradually increasing the dose and giving it at shorter intervals. The symptoms now began to abate, sensibility began to be restored, and every circumstance of the case seemed to promise a speedy convalescence. On the third day from the commencement of the caustic I discontinued it, and from that time the patient rapidly recovered upon a plentiful diet of poultry and sweet potatoes, and now she is a healthy and thrifty child.—*American Journal of the Medical Sciences.*

New Principle in Cinchona.—M. Van Mons has discovered a new principle in the bark of the *Cinchona montana*, which is white, crystallizable, and extremely bitter. The discoverer calls this *Montanine*, and says that he has cured intermittent fever in three days with it, in doses of two grains a day.—*Buchner, Repertorium für die Pharmacie.*

Whole number of deaths in Boston for the week ending Jan. 9, 23. Males, 12—Females, 11.

Of fever, 1—intemperance, 1—infantile, 1—convulsions, 3—lung fever, 2—consumption, 6—dropsy on the brain, 1—child-bed, 1—inflammation of the bowels, 1—worms, 1—burn, 1—liver complaint, 1—throat distemper, 1—hooping cough, 1—scarlet fever, 1.

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PUNCTURE IN CHRONIC HYDROCEPHALUS.

I.—*Case of Chronic Hydrocephalus treated by Puncture.* By R. C. RUSSEL, Esq. of Aberdeen.

CHRISTIAN LITTLEJOHN, whose age is eight months, was affected with chronic hydrocephalus. Her mother observed a few days after birth a greater separation of the bones of the head than natural, after which its size began to increase very rapidly. Eleven weeks after birth, I was requested to see her along with my friend Mr. Moir, Lecturer on Anatomy in this place. By that time the head had acquired an enormous size; it measured in circumference twenty-three inches, and from the meatus of one side to that of the other, across the vertex, fifteen and a half inches. There was a constant rolling of the eyes, and squinting, but there was no unusual dilatation of the pupil, which contracted readily on the application of light. The bowels were irregular, and she was affected with slight startings during sleep. Various methods of treatment had been adopted, viz. compression, blisters, mercury, diuretics, &c.; but in spite of these measures the head continued to increase. As the general state of her health appeared good, I resolved upon trying the operation which has been recommended, of gradually discharging the water by puncture. The operation was accordingly performed on the 25th August, six days after my first visit. The instrument which I employed was a trocar such as is used in hydrocele. I introduced it about half an inch in depth on the right side of the anterior fontanel, and three ounces of serous fluid were discharged through the canula. A piece of adhesive plaster was placed over the puncture, and a roller applied around the head. She slept well that night, but next day she was slightly feverish, and continued so for two days afterwards, when she appeared as well as before the operation.

On the 4th day of September, the puncture was repeated in the same manner on the opposite side, and five and a half ounces of turbid serum were evacuated, containing several flakes of lymph. No unfavorable symptom followed. On the 15th September, the size of the head appeared much lessened, and was found to have diminished two and a half inches in circumference, and two and a quarter across the vertex. Ossification had made considerable progress. A large opening in the frontal bone, which extended from the bregma to the nose, was completely

filled up, while those in other parts were much diminished. In again using the trocar, only an ounce of fluid was discharged. On the 5th of October, I inserted the trocar near the part I first punctured, and introduced it as far as the meninges, but only half an ounce of fluid passed through the canula; I therefore re-introduced it, and entered it obliquely, about an inch and a half in the direction of the ventricle, and upon withdrawing it, nine ounces of serum were discharged in a continued stream. The wound was closed, and a roller applied tightly around the head. Immediately after the water was discharged, the pulse became feeble, and she was faint and weak; but during the evening she fell asleep, and awoke an hour afterwards apparently much refreshed. To my great surprise, not one unfavorable symptom followed. The pulse indeed became more regular than it had hitherto been, the startings during sleep were not so frequent, and she appeared in other respects better, with the exception of her bowels, which continued to discharge stools of a dark green color. She continued to improve for nearly three weeks afterwards, when her former symptoms gradually returned, and an obscure fluctuation could be perceived by pressing with the fingers above the anterior bregma. Small doses of calomel were administered till the mouth was affected, which shortly produced an absorption of the fluid, and a removal of all the hydrocephalic symptoms. Since then, she has had no relapse, and has enjoyed almost uninterrupted good health. She is a stout and lusty child, and her size uncommonly large for her age. The bones of her head are now complete, excepting the anterior opening, which is closing. The size of the head is less by four inches in circumference, and two and a half across the vertex, than it was previously to the first operation. With the exception of Dr. Conquest's two cases, I am not acquainted with another in which the ventricle has been punctured for the relief of water in the head. In the cases of Rossi, and Dr. Vose, the water between the membranes only was evacuated. An opinion is entertained by several, that this operation is not only a very dangerous, but an extremely doubtful one. I trust, however, that the result of these cases will prove that such fears are in a great measure groundless, and that, under favorable circumstances, the chance of cure is such as to justify its performance.—*Edinburgh Medical and Surgical Journal*, July, 1832.

II.—*Case of Chronic Hydrocephalus cured by Puncture.* By Professor GRAEFE, of Germany.

A boy, whose head from birth had been preternaturally large, but who was otherwise healthy, was, at four months old, admitted into the University Hospital at Berlin: he was then pale without being emaciated, and well made. The head, however, showed symptoms of chronic hydrocephalus; the face was small in comparison to the cranium; the hair was fine, light-colored, and very thin; the fontanels were widely open, and the sutures unclosed; the bones of the skull mobile, thin, and little advanced in their ossification. The greatest circumference of the head was eighteen inches and a quarter. Fluctuation could be perceived

every where, and especially at the anterior and posterior fontanels ; when pressure upon one of which was made, the other presented a hard translucent tumor. Not any of the medical means employed had the least salutary effect, and hence M. Graefe determined to try whether puncture would afford relief.

Having compressed the great fontanel so as to determine the fluid towards the small one, he introduced a moderately-sized cataract needle, at first vertically into the fontanel close to the side of the bone, and then, giving it an oblique direction, carried it onwards about a third of an inch. The liquid, which was viscid, dropped out but slowly ; the operator, therefore, withdrew the cataract needle, and introduced in the same way a fine trocar, and, as soon as the canula was opened, a transparent yellowish brown fluid gushed out in a free stream. In about half a minute the canula was closed, with the intention of subsequently re-opening it after the lapse of a few minutes, which was done several times, the skull being, during the whole period, gently compressed by the hands of an assistant applied on either side. When twelve drachms of the fluid were discharged, the infant's eyes became suddenly dull, the pupil contracted, the countenance pale and altered, and the action of the heart and the pulse more feeble. The canula then was immediately withdrawn, the wound closed, and the head compressed by the application of strips of adhesive plaster.

These symptoms did not disappear for several hours, notwithstanding the exhibition of stimulating medicines, which were prescribed ; and the child remained restless, slept little for the two following nights, cried much, and took the breast but seldom.

The same symptoms occurred after each subsequent operation, but it was found that the child became completely restored in about ten or fourteen days. At first only about twelve drachms were evacuated after each puncture, subsequently twenty were discharged. Between the earlier times of operating, the little patient took, morning and evening, the eighth of a grain of calomel, and the sixteenth of a grain of foxglove ; but this powder causing nausea, it was changed for two or three grains of calomel with magnesia, to be taken twice a day, two or three times a week, the head being bathed assiduously with squill, vinegar and water, just warm ; for after cold applications, which were tried several times, the infant was always uneasy, pale, and faint, insomuch that convulsions were feared. The head diminished in diameter two or even three lines after each operation, and by degrees the dimensions of the skull were reduced to a conformity with the face and the rest of the body. The fluctuation and the mobility of the cranial bones diminished, the sutures closed, and the general state of the patient was improved. The punctures were repeated eleven times at the following periods during the year 1829 : viz. the 8th, 15th, and 23d of January ; 19th of February ; 5th and 19th of March ; 19th and 27th of April ; 5th and 17th of May ; and 23d of June. The liquid evacuated became thicker and more coagulated towards the end. After the last operation, on the 23d June, no further fluctuation was perceived ; the little fontanel and all the sutures were closed, the great fontanel alone remaining slightly open. The

child grew, and even after the third operation it had already a better appearance, and after the ninth it began to articulate certain words, and also to walk : at ten months old it ran alone, and spoke as well as children of that age usually do. At the end of June, its head measured in the greatest circumference eighteen inches and three quarters.

On the 26th of November, 1830, the child, being then two years and a half old, was alive and well, and was presented to the Society of Medicine at Berlin.—*London Medical and Physical Journal, from Graefe and Walther's Journal des Chirurgie, &c. Bd. 15.*

GENERAL DROPSY.

Case of General Dropsy. By CHARLES C. HILDRETH, M. D. of Marietta, Ohio.

BETSY KING, a strong, robust, hard-laboring woman, about fifty years of age, began to complain of difficulty of breathing, and enlargement of her lower extremities, a few days after falling into a stream of water.

These symptoms had been gradually getting worse for about six weeks previous to my seeing her, occasionally yielding partially to evacuants, digitalis, &c. which had been prescribed for her by other physicians. When first called to see her, I found her sitting in an arm chair, which she had not been able to leave for some time previous ; breathing laborious, slightly asthmatic, and crepitant ; complains of great weight and oppression in the chest ; dry and troublesome cough, and deficient expectoration. To these symptoms were added an almost total suppression of urine, and slight mental alienation.

Her lower extremities were distended almost to bursting ; slight vesications had already appeared, indicating an effort of nature to diminish the distension. The skin felt cold to the touch, hard, and resisting to pressure.

So great to me appeared the cellular infiltration, that to satisfy my curiosity and avoid exaggeration, I took the trouble to measure it ; this I did by applying a string around the bellies of the gastrocnemii muscles ; which again applying to a scale I found to measure nearly twenty-six inches.

Her pulse was full, hard, and tense, evidently indicating venesection, to which operation she however refused to submit, urging her feelings of weakness and the severity of the preceding course of treatment.

Thinking perhaps her sanguiferous system might be sufficiently reduced by active hydrogogue cathartics, &c. to render the absorbent system sufficiently active, I commenced the treatment by the following prescription :—R. Sup. tart. potass. 3ii. ; Pulv. jalappæ, 3i. ; Nit. potass. 3i. ; Gambogiæ, gr. vi. Of this compound, one teaspoonful proved sufficient to procure five or six copious, fluid alvine dejections daily. To remove any visceral engorgement that might exist, and stimulate the kidneys to more active secretion, I gave her a pill morning and evening, of calomel and squills, ãã one grain. This prescription was continued until a slight ptyalism was induced, which was perceptible about the fifth or sixth day. Seeing no diuretic effect for the first few days from the

nitre and squills, I ordered her a decoction of the common garden parsley, and some other diuretics from the woods, in old cider, to be taken pretty freely, which almost immediately occasioned a profuse secretion of urine, the patient discharging several quarts daily.

To promote expectoration and relieve her asthmatic breathing, I gave her Coxe's hive syrup, combined with a saturated tincture of lobelia inflata.

From this mixture, together with the cathartic and diuretic, she soon experienced great relief in respiration. To diminish the enormous distension of her lower extremities the more rapidly, I made with a spring lancet several punctures through the integuments and cellular membrane, extending them down from near the head of the tibia, on either side, towards its lower extremity.

These gave exit to large quantities of water ; keeping up a constant dripping from the same, till the flannel swathe about her extremities, her shoes, and the carpet breadth, were quite wet with the effusion.

By repeating these punctures, and continuing the above prescriptions about a week, the dropsical affection was entirely removed ; leaving her extremities shrunk to their natural size, and the skin slightly corrugated from increased tone. Her hydrothorax seemed also entirely removed ; her cough and oppression having left her, and she being able to lie down and sleep without any difficulty of respiration. A slight ascites, which had been forming but a few days, but which had rapidly increased, was by the same means checked and dissipated, leaving her entirely free from all dropsical effusion.

A liberal exhibition of tonics completed the cure.

American Journal of Medical Sciences.

LAWS FOR THE INTERMENT OF THE DEAD.

THE philosopher, who studies the errors of man, will not find the display of his passions least absurd with respect to the disposal of the dead. The strongest-minded man may, after death, become an unresisting puppet in the hands of false sentiment, caprice, fashion, and superstition. If we deride other nations—if we smile at the Abyssinian, who, as soon as his relative is supposed to be dead, hermetically seals his mouth and nostrils, &c. &c.—we shall find also, upon inquiry, that many civilized nations are not less singular in other respects. The fulsome mummeries and inexplicable customs of some other European nations, though revolting to good sense, and Christian humility and belief, are, nevertheless, harmless pieces of vanity, compared with the pride, which, in this country, lays claim, at the expense of the living, to place and distinction, even for the tenant of the grave. For a striking instance of this pernicious absurdity, we need go no farther than the new church of M——. For the sum of thirty pounds, we may there purchase the privilege of poisoning the living, with the body of some departed relative. The body is laid on a trap-door, which (as an apology for the solemnity of 'Dust to dust') is strewn with a little sand. It then descends with its load to the bottom of the vault :—porters start from their hiding places

below, and as quickly disappear with their prize ; and when the noise and bustle of their operations have subsided, you are invited into the depths of this fashionable ‘Avernus,’ to see the remains of your friend, duly exalted above the coffins of his predecessors. All that is indecorous at the moment, and prejudicial afterwards, may be avoided, by obeying, to the letter, the awful words of the service—(which convey more than one emphatic meaning)—‘Earth to earth.’

Errors, such as these, fall immediately within the scope of our subject—but not all errors—not those which relate to prejudices against the examination of the dead, or to the dissections of the anatomist ;—prejudices that impede the advance of scientific knowledge, and have given rise to crimes unprecedented in the annals of iniquity.

All the civilized nations of antiquity have condemned the custom of interment in cities. Wherever he travels, the antiquarian finds in the environs of the great ancient cities, tumuli, necropolis, funereal temples, vaults, excavations in caverns, masses of masonry of the most astounding magnitude, such as the pyramids—wonders of the old world, that appear to have survived the wreck of ages, to teach us an important lesson—a lesson, however, as yet unattended to in this country.

The mummies of Egypt, with their elaborate hieroglyphic legends—their preservation by gums, aromatics, and absorbent earths—offer us another example, how honor to the dead was made compatible with the safety of the living.* Sculpture has perpetuated the beautiful forms of urns ; and classical history, the description of the funeral piles, whose cinders furnished their sacred contents. Among the Romans, the laws of the Twelve Tables bore ‘*Hominem mortuum in urbe ne sepelito, neve urito.*’

The neglect of such salubrious laws never fails to produce serious consequences. The Hindoo laws, of such high antiquity, prescribe the burning of bodies, before being thrown into the sacred river ; which now being incompletely done, putrefaction is still generated, adding to the deadly effects of the marshes near the Ganges.

In further illustration of this subject, we may cite the reports of the French physicians, Messieurs Hamont and Parriset, who were expressly deputed to Egypt by the French government, to investigate the nature of the plague. It is their opinion, that the very superficial mode of interment that prevails there, materially contributes to it. At almost every village, they found, near the habitations of the Arabs, mounds crumbling away, and exhibiting the naked bones of those who had been buried in them.

In the whole of Lower Egypt, corpses are merely thrown on the surface of the earth. A hillock is raised over them, which is quickly demolished, or cracks in drying—while infectious vapors escape through the fissures, or flies are admitted to the bodies. The sting of these insects will subsequently produce pestilential tumors, of which many of the natives have been known to die.

* This custom among the Jews, in the time of the Redeemer, is thus alluded to in the Holy Scriptures : St. John, chap. xix. ver. 39, 40. ‘And there came also Nicodemus, * * * * and brought a mixture of myrrh and aloes, about an hundred pound weight. Then took they the body, * * * and wound it in linen cloths, with the spices, as is the manner of the Jews to bury.’

Modern nations are no less decided, in their condemnation of the practice of interment within the precincts of cities. Their funereal monuments testify this, no less than those of the ancients. We need scarcely mention the Pere la Chaise, near Paris—the Campo Santo, near Naples—the Vale of Death, near Constantinople, &c. &c.

What a contrast do our English habits present ! Cemeteries, in the most populous places, elevated in consequence of their limited extent of space several feet above the pavements—and coffins, so close together, that the sexton is compelled to probe the ground, before he begins to excavate, to see whether the soil is sufficiently decomposed !

But the interment in churches is even more to be deprecated than all the circumstances we have stated. Vainly do the undertakers enclose the body in two coffins : supposing the lead hermetically sealed (as it should be), in the decomposition of the body, elements are evolved, and combine, of sufficient power sometimes to burst, at others to corrode, the coffin ; and the subtle effluvium escapes at a time when it has become most active, from long imprisonment.

‘ Non sempre i sassi sepolcrali ai tempi
Fean pavimento, ne agl’incenso avvolto
Dei cadaveri il lezzo, i supplicanti
Contamino.*

Churches are exposed, no less than other buildings we have mentioned, to the generation of insalubrious atmosphere, when crowds are assembled together in the hot season of the year. When to this source of mischief is superadded the subtle emanations from the dead, what may not be the amount of evil, although perhaps operating at a remote period ! Mr. St. John has remarked, ‘ Our dead are interred in our temples, and putrid exhalations float, like a desolating mist, through those aisles, which should be sacred to praise alone. Men feel a sinking of the spirit on entering them ; but it is caused not by any accession of penitential feelings, but by inhaling a fetid, unwholesome atmosphere ; and through life they associate a certain cadaverous scent with every reminiscence of a church.’

We shall now give a few instances of the effects of effluvia from dead bodies.

In Dr. Johnson’s work on Tropical Climates, we find, that a man dying in a ship then in China, and his companions taking his body to the banks of the river to be buried, at the first stroke the spade of one of the diggers entered a coffin, from which so strong an effluvium escaped as to strike down the two nearest men, who ultimately died.

We cannot afford space to relate all the accidents of a similar nature that occurred at the beginning of the French revolution ; when, on account of the insalubrity of the church and neighborhood of the Cemetery of the Innocents, the government determined to have the remains of the bodies removed. M. Thouret himself, who was director of these opera-

* Ugo Foscolo—*I Sepolcri*. These lines have been translated thus :

‘ Not in wise times the cemeteries dank
Were laid beneath the churches’ floors, and gorged
Till the believers shudder’d at the stench,
Strangling the incense fumes, and kneel’d in terror.’

tions, narrowly escaped death from a putrid fever which he contracted in the performance of his duties. Those who only refer to works of general literature, will find an interesting account of the accidents that occurred on this occasion, in M. de Chateaubriand's '*Genie du Christianisme*.'

Three workmen died, who had entered the vault of a church at Montpellier, in 1749 ; a rapid flight saving a fourth, who had accompanied them.

The bodies in the burial ground of St. Eustache, in Paris, were moved in 1749 ; and of a number of children, who were proceeding to the church, to be questioned in their catechism, some fell down in a state of syncope, whilst others were subjected to other indispositions.

At Saulieu, in Burgundy, in 1773, and at Nantes, in 1774, great numbers of persons attending divine service were attacked with most serious diseases, in consequence of the bursting of coffins of persons interred in the church.

These, and numberless other instances that might be quoted, induced the French government to prohibit interments in the town ; and it was once in contemplation to burn dead bodies, according to the custom of the ancient Romans.—*Journal of Health*.

REJECTION OF THE CONTENTS OF THE STOMACH BY VOMITING.

Observations on some Circumstances which prevent the Rejection of the Contents of the Stomach by Vomiting. By JONATHAN OSBORNE, M. D., Fellow of the King and Queen's College of Physicians in Ireland, &c.

ALTHOUGH the mechanism of vomiting has been fully and successfully investigated by Magendie and other physiologists, and it has been established by their experiments that the action of the muscular fibres of the stomach is not the chief means, but that it is subservient to the pressure exercised by the diaphragm and abdominal muscles, yet there are several points connected with the function of vomiting which have never been sufficiently examined. One of these is the impossibility of vomiting which exists in some individuals, and also in some animals. Two modes in which this impossibility is produced, are the subject of the following observations. 1st. *Contraction of the œsophageal orifice* ; 2d. *Permanent opening of the pyloric orifice*.

1st. *Contraction of the œsophageal orifice.* This may take place in consequence of inflammation causing thickening of the mucous membrane, and also spasm of the circular muscular fibres at the orifice, as is observed in some cases of poisoning by arsenic, and other corrosive metallic poisons ; in which there are violent retchings and convulsive efforts at swallowing, but the contents of the stomach are not rejected, and nothing comes up but glairy mucus, derived from the pharynx and œsophagus. In other instances this kind of impossibility of vomiting arises solely from spasmodic action at the orifice, and is independent of any inflammatory action. I am indebted to my friend Dr. Perceval

Hunt, for the following statement of a case which appears to belong to this head.

‘A Mr. S. has never vomited, so far as he remembers, under any circumstances, and appears from his earliest infancy to have been unable to discharge the contents of his stomach. Sea voyages have always caused great nausea, faintness, pain, and sense of twisting in the region of the stomach, succeeded by hiccup and most severe sneezing, then an intermission followed by another severe paroxysm, but never by retching or vomiting. Drinking wine to excess has always brought on a similar train of symptoms. He does not recollect ever to have taken an emetic, or anything intended to induce vomiting but once, when, during childhood, he was largely drenched with warm water, which, however, produced no other effect than great distension of the stomach. This peculiarity extends to several members of his family. One of them having, by the advice of a physician unacquainted with the circumstance, taken tartar emetic, suffered severely, and lay in a state of insensibility for two days. I may remark, that all those persons are of the habit usually denominated nervous, and subject to dyspepsia in a great degree from the slightest errors in diet.’

In the above case, the sense of twisting in the region of the stomach, with the nausea and faintness, while the system was under the influence of an emetic, denotes a strong effort to reject the contents of the stomach by vomiting, and the sneezing shows that the diaphragm took an active part in this effort, which appears to have been too violent, and to have actually prevented the vomiting from taking place.

It must be recollected that the *crura* of the diaphragm, between which the œsophagus passes, can, by their contraction, firmly close the tube, so as to prevent a passage; and that in ordinary vomiting the diaphragm is not in a state of active muscular contraction, but having contracted so as to fill the lungs with air, it remains passive, while it is supported by the air retained in the lungs by means of the active contraction of the muscles of the *glottis*.

The second instance which I am able to adduce is that of a medical gentleman of eminence in this city, who, when in a state of alarm from having been exposed to the contagion of fever, which he thought he had contracted, took eighteen grains of tartar emetic in repeated doses in the space of a few hours, without being able to produce vomiting, although on a former occasion he vomited after taking four grains. He has always attributed this circumstance to the eagerness with which he wished vomiting to take place on this particular occasion; and it is well known in hospitals that patients, when desired to pass their urine in the presence of the medical attendant, experience a kind of constriction at the neck of the bladder, which increases with their eagerness to overcome it, and prevents them for some time from complying, although at other times the passage takes place without any difficulty whatever.

I have no doubt that I might have adduced a number of similar instances in which vomiting was prevented by spasmodic closure of the œsophageal orifice; but I prefer to appeal to the recollection of practitioners, who must have met with instances, not only of this kind of impossibility of vomiting, but also of impossibility of eructation of the

gaseous contents of the stomach, from the same cause, although at the time the mode in which such occurrences took place did not attract their attention.

2dly. Permanent opening of the pyloric orifice. It is obvious that, if the *pylorus* remains open, the contents of the stomach will, when exposed to pressure, pass down through it, and not into the *æso-phagus*, and that thus vomiting will not take place. The following case I adduce as an instance of a disease in which vomiting always occurs, yet in which it could not occur in consequence of permanent enlargement and patency of the pyloric orifice, induced by scirrhus and ulceration.

Catherine Finegan, aged 45, married, was admitted to Sir Patrick Dunn's hospital on the 18th of August, in a state of extreme emaciation, with the dusky jaundiced hue of the countenance which usually comes on towards the fatal termination of cancerous diseases. She complained of severe pain at the pit of the stomach, and right *hypo-chondrium*, shooting to the back and left shoulder. The left lobe of the liver was distinctly felt to be of a great size, indurated, painful on pressure, and with large eminences on its anterior surface. Pulse 100; could lie only on her right side; constant diarrhœa, with discharges of whitish shreds, having a peculiar cadaverous odor. A period of fourteen months had elapsed since the commencement of the disease. After her admission, the diarrhœa and pain were alleviated, but the former recurred; and on the 27th, slight rigors, with collapse of the countenance, came on, and she died on the evening of that day, *having never vomited, nor been affected with singultus during her residence in the hospital.*

On examination after death, the reason why vomiting was absent in this case, when in every instance of the same disease of the stomach it is always present, became quite manifest; for the *pylorus* was found presenting a firmly attached and permanently open orifice, of an inch and a half in diameter, formed by jagged ulcerations of a mass of scirrhus structure, surrounding the part which connected it firmly with the left lobe of the liver, into the substance of which the ulceration had penetrated to a considerable extent. The tunics of the stomach were gradually increased in thickness from the cardiac towards the pyloric extremity, and the liver presented large circular masses of scirrhus structure, which at the concave surface of the left lobe were involved in the mass surrounding the *pylorus*. A preparation of those parts has been deposited in the Museum of the College of Physicians.

In this instance it is obvious that, whether the action of vomiting were attempted to be performed by the diaphragm and abdominal muscles, or by the contractions of the stomach alone, in either case its contents must have been forced down the *pylorus*, and not into the *æso-phagus*.

If we endeavor to illustrate this subject by an appeal to personal experience, many instances will occur to our recollection of a state of suffering from nausea instantaneously relieved by a convulsive motion felt in the region of the stomach, as if it had rid itself of its contents, without, however, any vomiting having taken place. This is best explained by admitting an open state of the *pylorus* to have prevented the occurrence of vomiting. This open state may be temporary, and produced by temporary causes, and may depend especially on the small extent to which

the stomach is at the time distended. The facility of vomiting occasioned by taking large draughts of fluid, appears to be less owing to the excitement of its bulk than to the diminution of the orifice of the *pylorus* which takes place when the great curvature is turned outwards, as it is in the distended state. It is well known that vomiting rarely if ever occurs in the horse, and an examination of the stomach in that animal proves vomiting to be almost impossible; for the diameter of the *pylorus* is so large as to admit the passage of a hand of ordinary size, and is at least twice the diameter of the *œsophagus*: so that every circumstance must cause the contents of the stomach to be propelled through the former in preference to the latter orifice. This fact is the more worthy of remark, as Cuvier (*Leçons d'Anatomie Comparée*) has ascribed the impossibility of vomiting in the horse to the strength of some of the longitudinal muscular fibres at the *œsophageal* extremity. This opinion was formed before the experiments of Magendie and others had evinced the small share which the muscular fibres of the stomach take in the act of vomiting. The longitudinal fibres in the horse are quite inadequate for the purpose assigned, and are very little if at all more developed than they are in animals in which vomiting is most familiar.

The influence exercised by the *pylorus* on vomiting has been much overlooked. In diseases affecting that portion of the stomach next the pyloric orifice, vomiting is most likely to occur; whilst the appetite is most affected by affections of the cardiac extremity. This conclusion I have arrived at after comparing a great number of my cases and dissections. Notwithstanding, there may be several exceptions, as, for instance, when the affection is situated in the small curvature, in which case neither deficiency of appetite nor vomiting may occur. The vomiting being so uniform an attendant on disease in the neighborhood of the *pylorus*, appears to arise from spasmodic contraction of that orifice taking place, in consequence of its being near an excited part. And it must be held in recollection, that something must take place to cause the *pylorus* to contract, else there will be no vomiting. Magendie's well known experiment of substituting a bladder for the stomach, may cause this necessary action of the *pylorus* to be overlooked. In that experiment, vomiting was inevitable when the abdominal muscles contracted in conjunction with the diaphragm, because the contents of the bladder had only one exit, i. e. through the *œsophagus*. The existence of another orifice in the stomach renders the action more complex, and introduces a new condition to be fulfilled, which, if rendered impossible, vomiting also becomes impossible—which constitutes the second kind of impossibility mentioned at the commencement of these observations.—*Edinburgh Med. & Sur. Jour.*

CASE OF ADHERENT PLACENTA TRUSTED TO NATURE.

BY WILLIAM BROWN, M. D.

[Communicated for the Boston Medical and Surgical Journal.]

OCT. 10th, 1832, I was called to Mrs. ———, aged 24, in labor, as she said, with her first child. I arrived at 10, P. M.; pains were

then frequent and effective, the os uteri rapidly dilating, and the presentation natural. The head of the fœtus was soon at the inferior strait. In this situation it remained, notwithstanding the continuation of most powerful uterine contractions. In about two hours from the time that this arrest took place, the patient's strength began to fail rapidly ; and there being not the smallest prospect of a delivery by the natural powers, the forceps were applied, and the child soon taken. It was dead—weighing twelve pounds ; the head was exceedingly elongated, the disproportion between it and the pelvis being very great.

The uterus soon contracted upon its remaining contents, but no pain returned. I waited an hour and administered 20 grs. *secale cornutum*, and repeated the dose in half an hour. Slight pains followed, but effected no alteration in the situation of the placenta. I soon became convinced that the placenta was adherent ; and consequently the hand was introduced, and this mass ascertained to be very firmly united to the fundus and anterior part of the uterus. I commenced separating it, but was soon forced to desist on account of the very profuse hemorrhage which it caused, although, at this time, the tonic contraction of the uterus was quite firm. Finding my patient in great danger from loss of blood, the hand was withdrawn and the hemorrhage arrested by frictions upon the abdomen, cold applications, &c.

During this operation not more than one sixteenth of the placenta was separated, yet the loss of blood was so great as to occasion alarming syncope. Being now confident that the patient would die in my hands, were the operation continued, I resolved to trust it to nature. The woman was accordingly put to bed, and the nurse directed to keep the abdomen covered with cloth frequently immersed in spirit and cold water.

Oct. 11th, 6 o'clock, P. M. Has slept some—had no pain ; pulse 100, small and compressible. Bath to be continued and frequently changed ; diet, gruel and rice water.

12th. Has rested little during the night ; pulse 120, rather hard ; tongue white, skin husky, abdomen tumid and tender.—To take *sul. mag.* 3j., repeated every second hour until full catharsis was induced—to continue bath ; *pulv. ip. comp.* at night.

13th. Thirst great ; pulse 120, more compressible ; abdomen less tumid ; some headache. *Sul. mag.* to be repeated. *Solution nit. potass.* every second hour.

14th. Umbilical cord separated last night ; no pain ; pulse 125, small and compressible ; abdomen still tumid, a little tender ; skin moist.—To take *sul. quinine*, 2 grs. every fourth hour—small quantity white wine.

15th. Has rested better ; pulse 100, full and soft ; skin moist ; abdomen less tender.—To take *ol. ricini* 3ss. ; to continue the quinine.

17th. Says she is much better ; pulse 90 ; skin more natural ; quinine every sixth hour ; wine discontinued ; 3ss. *ol. ricini*.

19th. Better ; tongue natural ; no tenderness on pressure about the abdomen.

20th. Called in haste to my patient ; pains had come on, and the placenta, in a state of putrefaction, was protruding into the vagina. It was easily removed, and the pains soon abated. From this time the

woman rapidly recovered ; and in four weeks from the time of her confinement, was attending as usual to her domestic concerns.

I have lately been informed that this woman had a still-born child three years ago, and two years previous to her marriage, in which case also the placenta was retained and submitted to nature. She then resided in another State, and I have not yet learned the particulars of this case.

Poplin, N. H. Jan. 4th, 1833.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JANUARY 23, 1833.

MORTALITY IN BOSTON FOR THE YEAR 1832.

THE tidings from the grave which the new year brings with it, assume, the present year, an unusually serious aspect. The number of deaths during the last year is reported at 1761, which is more by 22 per cent than that of the preceding. The deaths for 1831 averaged 28 per week ; those for 1832, 34. A part of this increase is no doubt to be attributed to the augmentation of inhabitants, which, for the year, is probably not far from 3 per cent ; that is, if we suppose the ratio of increase from 1820 to 1830 to have continued unchanged. The increase of mortality, therefore, on the same number of inhabitants, is about 19 per cent. Neglecting, however, the consideration of the difference in population, for which it will not be difficult to make the allowance, we shall consider some of the most interesting points of view in which the general fact aluded to presents itself. Comparing, then, the same months in the two successive years, we find that for January there is an increase of 55 per cent ; in February, of 45 ; in March, of 31 ; in April, of 70 ; in May, of 101, the deaths being more than doubled this year ; in June, of 55 ; in July, of 22 ; in September, of 24 ; in October, of 32 ; in November, of 15 ; while for August there appears a diminution of 13, and in December of 39. This last month, indeed, presents the greatest mortality of any during the year 1831. The mortality of this month, during that year, was probably connected with the extreme and unremitted cold, occurring as it did at an unusually early period of the season.

As respects the diseases, in regard to which the difference between the two seasons has been most manifest, we observe—1. The remarkable increase in the prevalence of measles, from which 2 deaths are reported in 1831, and 70 in 1832. 2. The increase of mortality from scarlet fever, from which and throat distemper there were 84 deaths in 1831, and 199 in 1832. This disease seems to have been both very prevalent and peculiarly fatal during the last year. 3. The addition of malignant cholera

to the list, to which it appears that 78 have been victims during 1832. We notice few other marked instances of increased mortality from particular diseases. Typhus is charged with 45 deaths, which we should suppose rather under the actual mortality from that form of fever. Some forms of disease have been less fatal the last, than the preceding year; hooping cough has 22 deaths set against it, whereas in 1831 there were 26. This disease, either from a difference in the mode of treating it, or from some other cause, is decidedly less dreaded than formerly; and seems, so far as can be judged from the records of the last few years, to be growing milder.

In speaking of the general results deducible from this abstract, we have said nothing of the manner in which it has been drawn up. In some of the details there are glaring defects; not attributable, indeed, to the respectable individual under whose name the paper appears, but owing to the want of a proper responsibility in the reporting of diseases. We have, as usual, lung fever and inflammation of the lungs, given as distinct items, and no less than 126 unknown diseases. We understand, in fact, that in the great majority of cases the disease is learned from the friends, and that where they are not able or disposed to assign any, the superintendent is reduced to the alternative of making the matter out by the symptoms described, or of entering the case on his unknown list. The truth is, that a statement of the cause of death should be furnished by the physician whenever the deceased has had attendance, so that the unknown should be only those in which the death was sudden. The subject of rendering the bills of mortality more exact, has already attracted the attention of the medical profession; a new list of diseases has been prepared, and a plan devised for securing exact reports. To carry this into effect needs only an act of the city government, requiring returns to be made in conformity with the list. We hope that this subject will receive the attention which it deserves.

PURE WATER.

It is a subject of congratulation with the inhabitants of this city, that the mayor has recalled to the attention of the Council the importance of furnishing a supply of soft water. The hope that some effective measures to this end will be adopted, is encouraged by the fact that a committee has been appointed, charged with this highly important subject. For many years a supply of soft water has been a great desideratum, and it is worthy of remark that the causes that have rendered it so are constantly increasing. So large a portion of the earth within the limits of the city has become now charged with impurities, that the water collected in our wells cannot but be, in some measure, impregnated with them; and the experience of every family sanctions, in a greater or less degree, this

conclusion. When, therefore, it is recollected in how many ways we receive water into the system—that we not only, in these days more particularly, make it our chief drink, but swallow it in our tea and coffee—and that all our bread, and our boiled meats and vegetables, are thoroughly imbued with it, we cannot but be alive to the very great importance of having it in abundance and in its purest state. Independent of the immediate comfort to be derived from such a supply, we would hazard the opinion, and let it not be lightly esteemed, that nothing in the power of the City Council would so essentially promote the *health* and the *temperate habits* of their constituents, as to bring to their several habitations a plentiful supply of this most delicious of all beverages. The expense attending the most economical mode of accomplishing this object, would doubtless be great : but, as an investment, the amount would unquestionably be productive of more than usual interest ; and even if it were not, the expenditure would be fully justified by the public good resulting from it—by the measure of health it would bring to the citizens, and the powerful aid it would afford to the cause of temperance.

Instruction of the Blind.—The gratifying results which have followed the introduction of the language of signs from Europe, for the instruction of the Deaf and Dumb, have induced a portion of our philanthropists to direct their attention to another class of the unfortunate members of the human family—THE BLIND. About two years ago, an Association for the instruction of the blind was formed in Boston : and in June, 1831, Dr. Samuel G. Howe was sent to Europe, to acquire the requisite information for the establishment of a school for their instruction. That gentleman visited several of the schools in the European capitals, and was on his way to that in Vienna, when he was arrested by the Prussian Government for the aid and comfort which he was deputed to administer to the Polish exiles on his route. He returned to his own country during the past summer, bringing with him an intelligent pupil of one of the European schools. The institution in Boston has since been opened, under the most flattering auspices, and the results, so far, have more than fulfilled the expectation of its founders. Simultaneously, as it were, with the opening of the Boston Institution, a similar undertaking was commenced in this city, the immediate direction of which has been entrusted to Dr. John D. Russ, a gentleman well qualified for the station, who is a particular friend of Dr. Howe, with whom he served in the recent Grecian struggle for freedom.

On Thursday evening last, a meeting was held at the City Hotel, to witness an exhibition of the progress which had been made by the pupils of this last-mentioned institution, in the cultivation of their minds, and in the mechanic arts. An interesting and able address was read to the meeting by Dr. Akerly, in which he expatiated upon the blessing of sight, the calamity of its deprivation, and the extent to which the blind may be rendered happy and useful by instruction. According to the late census, it appears that the number of blind persons in this State is 724, of whom 82 are of our colored population. This enumeration probably falls short of the fact ; for the census mentions only 46 in this city, whereas it is ascertained that there are more than 50 in the almshouse alone. According

to the last census of the United States, the number of the blind in New England, New York and New Jersey, is 1365. To alleviate the misfortune under which so many individuals labor, is an effort worthy of the pure and enlarged benevolence of our fellow citizens. It is well known that a great proportion of these unfortunates in this city lost their sight by ophthalmia in the almshouse. The original calamity of being poor and friendless placed them there, and by the occurrence of the disease alluded to, they are further deprived of the most necessary of all the senses for gaining a livelihood. Even with the best instruction and kindest sympathies, their situation is deplorable—without them it is wretched indeed. The exhibition to which we refer, evinced that great mental improvement and mechanical skill may be attained by able teaching, even in those branches where the possession of sight would seem to be indispensable. We may venture to say in conclusion, that no person who attended the meeting came away without sensible gratification, or without feeling an anxious desire that this valuable institution may be more generally known and appreciated by a liberal and beneficent community.

N. Y. Com. Ad.

New Naval Hospital.—In addition to the 'Marine Hospital,' which is located on one side of the Winnisimmet property, in Chelsea, a new building, to be called the 'Naval Hospital,' is about to be erected, on the other side of the ferry lands, in that town. The site cost the Government \$20,000 and upwards, and is well known as one of the most commanding as well as salubrious situations in New England. The grounds are to be laid out in a very regular but tasty manner. The whole structure and appurtenances are, as we learn, to be constructed upon the most liberal and extensive scale.—*Boston Eve. Transcript.*

The Cholera in Maine.—The report that there has been a number of cases of malignant cholera at Hollis, in York county, appears to be confirmed. Dr. Clark, of this city, who has visited several of the patients, says the symptoms agree perfectly with those he witnessed at New York, though he considers the disease of a milder form, and says it yields readily to medicine. Out of eleven cases which have occurred there this month, six have proved fatal. The remaining patients were recovering.

Portland Courier.

Smallpox.—The Norfolk Advertiser states that the young man in Dedham, who has been sick some time with smallpox, died on Friday last in the afternoon, and was interred the following night. His name was James Cooke, of Frasburg, Vt. His age was twenty-two years. No other case of smallpox had occurred.

Whole number of deaths in Boston for the week ending Jan. 18, 39. Males, 21—Females, 18. Sillbourn, 1.

Of croup, 4—dropsy on the brain, 2—accidental, 1—intemperance, 2—suicide, 1—hooping cough, 1—lung fever, 6—consumption, 7—infantile, 3—inflammation of the lungs, 3—disease of the heart, 1—child-bed, 2—throat distemper, 2—decline, 1—debility, 1—asthma, 1—burn, 1.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VII.] WEDNESDAY, JANUARY 30, 1833. [NO. 25.

SICKNESS AT THE MASSACHUSETTS STATE PRISON.

AMONG the documents just printed by order of the Senate, we find some relating to the late sickness in the State Prison at Charlestown, which will be interesting and important as affording more authentic statements than have yet been before the public respecting that remarkable epidemic. The following is the REPORT made by William J. Walker, M.D. Physician to the Prison.

To His Excellency Levi Lincoln, Governor of the Commonwealth of Massachusetts.

SIR,—On the evening of the fifth of August, about sun-setting, I received a message from the Warden of the State Prison, stating that many of the Convicts were suffering severe pain, and requesting my attendance. I repaired immediately to the Prison, and found that two men had been removed to the Hospital during the afternoon, that others had since sickened, and that the disease was becoming general among them. My attention was first drawn to several who had been taken from their cells, and placed in the gallery, that they might be more easily assisted. An examination of these cases convinced me that I had to do with a disease of no ordinary grade or character.

In answer to my inquiry what made them sick, they each informed me that they had been well up to that day, and knew not what had produced their malady. I next visited some in their cells, and found a remarkable similarity in all ;—that although the disease had but recently commenced, its effects had been truly wonderful and distressing. The contortions of countenance, writhing of body under pain, and outcries of suffering, issuing from every part of the Prison, presented a picture of distress, which, familiar as I have been with scenes of suffering at Military Hospitals, I have never seen equaled. The occasion required prompt and decisive measures—but here a difficulty presented itself. Night had arrived—as usual the Prison was under the care of the Warden and Night Watch of officers only, while its other officers were at their homes, or scattered about the town. The Hospital was in another building, some rods distant—there were no Watchmen on the walls, and darkness might afford facilities for escape. Under these circumstances,

I advised with the Warden, and, in co-operation with him, executed the following plan of operations. First—a messenger was sent to summon the whole corps of Officers to their posts. Second—the Nurse was required to have all the beds in the Hospital in readiness for the reception of the sick. Third—a man was sent round the Prison, with orders to inquire at every cell, and where he found a man sick, to take from him his water-can, and place a mark upon the door. Following close upon the heels of this messenger, I visited all the sick in their cells, encouraged them to bear their pain with fortitude, assured them the means of relief were at hand, and sorted out such as suffered most severely and placed them together in the gallery. An officer was now directed to go round among the cells once in half an hour, and give a pill of opium to each man, until his suffering should abate. The next object was to convey the sickest patients to the Hospital ;—and I am happy to say, such was the state of discipline among the officers, and such their alacrity on this occasion, that the Warden had no difficulty in conveying the sick from Prison to Prison, nor in passing every necessary person or article without delay, and without at all endangering the safe keeping of the Convicts, although the Night Watch of officers only was present during these operations. From this time, I am confident thirty minutes had not elapsed before we were able to send aid, courage and confidence, to the remotest cells of this extensive establishment. Having removed the first class of patients to the Hospital, and prescribed for their cases, as will be explained by and by, I returned to the New Prison, examined all the sick in rotation, collected another class of patients, and had them conveyed to the Hospital likewise. In this manner our time passed, until about nine o'clock, when an officer could be spared to invite the medical gentlemen of this town and the city of Boston to attend and witness the disease. These gentlemen were soon in attendance, and afforded us much relief by their advice and assistance. Some time after midnight, I made a report of the state of things to your Excellency, and early next morning addressed the following Note to the Warden and Inspectors of the Prison.

GENTLEMEN,—I feel it a duty to advise and request that an accurate chemical analysis be made, by some competent persons under your authority, of the remnants of food left from yesterday's ration, and likewise of the stools of the sick ; and in a particular manner to inquire if they contain anything poisonous or deleterious to health.

Respectfully yours, &c.

WILLIAM J. WALKER,

*Monday morning, 7 o'clock, }
August 6, 1832. }*

Physician Mass. S. Prison.

P. S. I have further to request, that an able Apothecary may examine and weigh all the articles in the Dispensary—compare them with the prescriptions made, with the quantities purchased, and report any deficiency of medicines which might prove deleterious if mixed with food—and that his Report be sealed, and not opened until the Report of the Analyzing Committee.

I was prompted to the above course by the conviction that there might be those who would believe this disease had been produced by culpable negligence, in not securing healthy food for the Convicts, or by poisonous articles mixed therewith;—that important legislative or judicial proceedings might grow out of the case, and that it would be expected of the Officers of this Institution to establish the facts as they actually existed, and upon the most unquestionable authority.

In compliance with this Note and instructions soon after received from your Excellency, the Inspectors employed Professor Webster, of Harvard College, to examine the utensils and premises of the Prison, and to analyze the food used by the Convicts on the day preceding the appearance of the disease. They likewise employed Mr. Daniel White, of the firm of Samuel Kidder & Co., a highly respectable Druggist of this town, to examine the medicines in the Dispensary of the Prison, and to report anything wrong in that department. These gentlemen have performed the duties assigned them with their accustomed accuracy, as will be seen by their Reports. At the same time, John Ware, M.D. and Joshua B. Flint, M.D. of Boston, and Josiah S. Hurd, M.D. of this town, were joined with me in consultation to attend the sick, and develope the true nature of the disease. To these gentlemen I shall always feel grateful for their kind attention and judicious advice on this occasion.

Having premised thus much, I shall proceed to record the phenomena which characterized the disease—the treatment adopted, with its success—its resemblance and discrepancy with certain diseases familiar to us—and finally, to draw such inferences as to its origin and nature, as facts seem to warrant and require.

During the first 48 hours, there was neither pain in the head, nor disturbance of the intellectual functions; but when fever supervened upon the primary affection, headache was among its concomitant symptoms. It likewise existed as a primary symptom in some of the cases which commenced subsequent to the 6th of August. The air thrown out by expiration was in no case as warm as usual, and in some cases it was cold. The lungs could be inflated and emptied of air to the full extent, without increasing pain. The tone of voice was similar in all the cases, and such as to indicate severe suffering. The attitude chosen by the sick was recumbent, upon the back—head thrown backwards—arms not folded on the epigastrium—legs drawn up with the heels close to the buttocks, so as to enable the patient to maintain a constant rocking of the body from side to side. The pain was confined to the abdomen. There was no permanent contraction of the abdominal muscles, nor did pressure on them either increase or diminish suffering. There was no flatulence—no tenesmus. During my whole attendance, I did not observe any spasmodic action of the abdominal muscles, or of the limbs. In one case, treated by Dr. Hurd, spasmodic motions were observed;—and another patient told me, some days after, that, during his sickness, he could not prevent his legs from starting and suddenly drawing up. The countenance was pallid;—the features contracted, and somewhat distorted;—the skin was cool in all, and in some cases it was cold;—it was not sweaty, or unctuous;—the thirst was insatiable and distress-

ing ;—the tongue was not coated, but was somewhat exanguious, and inclined to a sub-livid color ;—its temperature varied much and often ;—at one time it would be but little below its natural temperature—at another, cool—and again cold ;—its greatest degree of coldness equaled that of the flesh or blood of a cold-blooded animal, or what we experience when we place our hand on a wall recently drenched by a summer shower. During the progress of this disease, the tongue was seldom found to be coated ;—it was sometimes whitish, but generally of a cherry red—not smooth or swollen, but retaining its usual villous appearance, and differing from a natural state mostly in color. The taste was not bitter or nauseous. A disposition to vomit was common to all. The quantity of matter thrown from the stomach, however, was small ; and, excepting in a few cases, where food was discharged, consisted of a white tenacious liquid, unmixed with bile, ascidities, or anything likely to provoke vomiting. The evacuations by stool consisted, at first, of healthy natural fæces—next, a brownish liquid, changing to a pink, being tinged with blood, after the disease had continued a certain time. There were, however, no coagula of blood, bile, or undigested food, to be found in them. In a few cases, these stools were succeeded by others, having the appearance and consistence of cream. I have since queried with myself if this might not have been pure chyle, thrown back upon the intestines by an inverted action of the chyloferous vessels. The quantity evacuated was great in all cases—in some, it was enormous ;—most of them filled their night-buckets, which contain more than ten pounds of water, by weight ;—many filled them twice, while some filled them partly full the third time. We are, therefore, warranted in saying, that the bodies of many of the Convicts were lightened twenty pounds within a few hours ;—for it must be remembered, that all liquids were removed from them as soon as possible after the outbreaking of the disease. The pulse was exceedingly affected and variable ;—at one time, it would be full, hard, quick and bounding—then small, wiry, hard and creeping ;—again, it could with difficulty be felt at the wrist, or not at all ;—when it could be felt, it was uniformly hard, and such as to indicate prompt and copious bloodletting ;—and when relief was obtained, it became preternaturally slow. The remedies employed at the commencement of this disease, were entire abstinence from liquids, frictions of the skin, external warmth, opium, and bloodletting. By abstinence from liquids, we were enabled to keep opium on the stomach, as well as to lessen the disposition to vomit and purge. By friction and external warmth, we were enabled, in some measure, to restore the circulation and natural warmth of the body, and give opportunities for practising more efficient remedies. By the prompt and liberal use of opium, many of the milder cases were so far relieved as to require only diet, rest, and occasional laxatives, for their cure. In other cases, its use relieved pain, diminished vomiting and purging, promoted warmth, and proved a valuable auxiliary to other remedies. The quantity of opium dispensed at a dose was about 3 grains, and at intervals of 30 minutes. The greatest aggregate quantity taken by any individual, I should think, was about 20 grains, or equal to 500 drops of laudanum. As, at first, the most severe cases were treated by bloodletting—and as, from time

to time, those suffering the greatest pain were subjected to the same remedy, and promptly relieved by it, we cannot say there were or were not some cases which might have wholly resisted the curative powers of opium. Certain it is, however, that opium relieved pain, and suspended the symptoms for a while, in many cases, where, at the end of 24 to 48 hours, the disease returned. In practising venesection, under symptoms as above stated, I anticipated much difficulty in obtaining a ready and sufficient evacuation of blood. There was, however, but one case, in which frictions and extensive incisions into the veins did not enable us to obtain the requisite quantity. Had we been some hours later after the invasion of the disease, I fear it would have been otherwise. The case of exception above alluded to, was treated by my friend, Dr. Hurd, who represents that he found the man cold and pulseless, with spasmodic action of the muscles of the legs, and all the appearance of approaching dissolution. Under these circumstances, he attempted venesection at the arm, but without success. He next opened the temporal artery, and obtained blood of a darker color than is common to arteries ;—the blood at first merely trickled down the temple ;—after eight or ten minutes it flowed more freely, and of a better color ;—in about thirty minutes a sufficient quantity was obtained, and the man relieved. That the difficulty of obtaining blood in this case depended upon the state of circulation, and not upon peculiar organization, or insufficient incision in the vessel, is clearly proved by the facts that the artery was opened immediately anterior to the ear—that towards the close of the operation the blood became of a vermilion color, flowed in a full stream—and that several copious secondary hemorrhages occurred on subsequent days, and required much care to restrain. When practised at the commencement of the disease, bleeding was followed by immediate and perfect relief—so much so, that men with skin and tongue cold, and pulse absent or scarcely perceptible, were entirely relieved by the loss of from 16 to 32 ounces of blood ;—the pain was alleviated, vomiting and diarrhœa removed, and the disease, as it were, extinguished. Hence it occurred, that those who were most severely attacked, were not only soonest relieved from suffering, but speedily restored to health ; while those whose cases were trusted to opium, and not relieved by it—or for other reasons not bled at the commencement, passed into a new state of disease, characterized by headache, pain and soreness of the epigastrium, thirst, dysuria, diarrhœa of a mucous character, with skin and pulse approaching to what is above related—but alternating with occasional flushes of fever and febrile development of pulse. For the removal of these symptoms, we were constrained not only to bleed, but to repeat the operation at intervals for some weeks—to give occasional laxatives, blister, and apply moxas, maintain the most rigid diet, with demulcent drinks—have recourse to opiate enemas for the removal of diarrhœa, and frequently to see our patients thrown back into their former state by trivial accidents or imprudence.

The whole number of Convicts attacked with this complaint was 196 ;—of this number 115 sickened within the first 24 hours, and the remaining 81 at various times after. The last patient severely attacked, was on the 7th September—and the last discharged from the Hospital, cured of

this malady, on the 23d October, having resided in the hospital 79 days. Thus the whole number finally recovered, notwithstanding the severity of the first symptoms, and the protracted sufferings of those whose disease was not wholly arrested by rigid treatment at the commencement.

Having said thus much of the treatment, we naturally come to the inquiry—What was the disease, and what were its causes? If we compare it with the various diseases of the abdomen, which most nearly resemble it—such as inflammation of the peritoneum or viscera of the abdominal cavity, spasmodic affections, icterus, colic, colica pictonum, cholera morbus, dysentery, or with the effects of corrosive poisons taken into the stomach—we shall find, in each of these complaints, striking symptoms not noticed in this; while here, the excessive purging, coldness, and state of the pulse, are symptoms not common to any disease with which we are familiar in this part of the globe. In searching for local causes, we have been equally unsuccessful. The diet of the Convicts, always plain and wholesome, has received particular attention during the present season;—the use of old potatoes had been dispensed with, and rice substituted in its stead. The ventilation of the Prison, which had proved sufficient in former years, had been much increased—while the cleanliness of person and habitation, required and maintained by the authorities of the Prison, is not surpassed in the comfortable dwellings of our country. The most careful examinations, made by the Inspectors, as well as by every Officer of the Institution, could discover nothing poisonous in or about the diet or premises of the Prison:—none was found by chemical analysis; nor could the complaint have had its origin in a poisonous principle, sometimes accidentally present in food usually healthy—such as shellfish, cheese, partridges, &c.—since the same parcels of food were used on subsequent days, without the recurrence of similar effects. It is true, that certain articles, the class of acrid poisons—such as elaterium, croton oil and perhaps others, in undue doses, might produce excessive purging with nausea;—yet we have no reason to believe that the quantity evacuated could be so great, of such appearance, or relieved by the same means. The same observations will hold good as to the various articles of the materia medica;—and, for still stronger reasons, are they true as respects the remaining classes of poisons, usually denominated astringent, narcotic, narcotico-acrid, and septic—since poisons produce their specific effects on the human body, and no other, as surely as any other agents;—and when articles of these classes are taken into the body, they do not produce vomiting and purging, but symptoms widely different. Thus we see that spurred rye, which belongs to the class of narcotico-acrid poisons, could have no agency in producing this disease, even if it had been found in much greater quantity than is mentioned in the Report of the Inspectors—52 grains being found in $1\frac{3}{4}$ bushels of sound grain. But since this substance has been frequently, though, as I believe, unjustly considered the cause of other epidemic diseases in our country—and as a belief in this opinion is calculated to do much injury in a community so largely nourished by this grain, I trust I may be excused for saying the subject has been fully studied—that spurred rye has been found to produce the same effects on man as other animals—and that experiments on inferior

animals prove, that when they are fed upon it for five or six weeks, death ensues, and is attended with gangrenous spots upon the surface and internal viscera, and mortification of the extremities ;—but to produce this effect, one third of their food must consist of spurred rye. Experiment likewise teaches, that a very large dose taken at once may produce convulsions, other nervous symptoms, and death. I will merely add, that I have verified these experiments, and found a dose of 60 grains necessary to destroy so small an animal as a pigeon ; and that this dose sometimes fails ;—that a small rat, having eaten 95 grains in 13 days, died in convulsions, and that mortification had commenced at the end of his tail ;—that chickens may eat 30 grains per day, for weeks, without apparent injury ;—that I have known 30, 40, 60, and 80 grains taken at a time, by different individuals of the human family, with only producing slight temporary inconvenience. From the above it will be readily granted, that the small quantity of spurs found among the rye of our country, cannot be considered as dangerous to life, or even prejudicial to health. From the above considerations, I feel warranted in inferring that the late disease at the Prison was not produced by improper food, or poisonous articles mixed therewith ;—that it was not a disease common among us, but an epidemic of peculiar character, originating in some atmospheric or telluric causes, which we can neither explain, appreciate, nor control.

WILLIAM J. WALKER,
Physician to Massachusetts State Prison.

December 3, 1832.

The subscribers, having attended the Convicts at the Massachusetts State Prison during the epidemic disease which prevailed there in August last, fully agree in the description given by Dr. Walker of its symptoms and character.

JOHN WARE,
J. STEARNS HURD,
JOSHUA B. FLINT.

Touching the analysis of the possible causes of the disease described above, we offer the following extract from the Report of the Inspectors of the Institution.

A request was made by the Physician of the Prison, that a chemical examination might be had of the remnants of the preceding day's food, and also of the evacuations of the patients, for the special purpose of ascertaining whether they contained anything poisonous or deleterious to health. He also requested that an Apothecary might be appointed to examine and weigh all the articles in the Dispensary, to compare them with the quantity purchased and the prescriptions made, and to report any deficiency of medicines which might prove deleterious if mixed with food. Both these requests were complied with. The first examination was entrusted to Professor Webster, of Harvard University, who reported that he discovered nothing poisonous in any of the articles ; and the second was conducted by Mr. Daniel White, a respectable Apothecary, who stated, that having compared the bills for medicine purchased, with

the quantity on hand, he found the difference fully accounted for by the prescriptions of the Physician. The Inspectors considered it their duty to make further inquiries, in order to ascertain whether the disorder had been occasioned by any fault or neglect, and whether any and what precautions could be taken to prevent its recurrence. And as suspicions had been publicly expressed, that it might have been occasioned by the use of spurred rye, they caused all the rye, remaining in the barrel from which the prisoners had been supplied on the day before the disease broke out, to be measured and weighed, and then carefully examined by a competent person not connected with the Prison, who was instructed to pick out every particle of spurred rye, or other foreign substance, and put the same in a sealed parcel.

This parcel, together with a quantity of the rye, was sent to Drs. Bigelow, Channing and Ware, with certain specific questions, in answer to which they state that the spurred rye contained in that parcel was less than is ordinarily found in the same quantity of good merchantable rye, being less than a grain, by weight, to a quart; and that it could not have produced any sensible effect on health. They further declare, after a careful examination of all the circumstances of the case, that they know no reason for believing or suspecting that the disease was occasioned by any deleterious substance of a cognizable nature taken into the stomach. In corroboration of this opinion, it may be stated, that the same articles of food continued to be used by the prisoners during their convalescence and afterwards, and this without producing any bad effect whatever.

THE LATE DR. EDWARD HUDSON.

[Communicated for the Boston Medical and Surgical Journal.]

MR. EDITOR,—In the late Philadelphia papers, intelligence is brought us of the decease of EDWARD HUDSON, M.D., *Surgeon-Dentist*. I cannot but ask leave to occupy a brief space in your Journal, to pay some tribute of respect to his great professional worth.

A slight personal acquaintance with Dr. H., formed by a few short interviews, will not enable me to mention him with any degree of justice, either in relation to the fair standing which he sustained in society, or to those private virtues which none but an intimate friend can appreciate or describe. Yet all must respect the character of a man, which has been set forth as has that of Dr. H. by all who knew him and had occasion to mention him as a citizen, a neighbor, or a friend. And no one could pass an evening with him in his family, without viewing him as a much-beloved husband and parent, in an abode where that peace and happiness must dwell which are the sure fruits of mutual affection and kindness.

Dr. Hudson commenced his professional labors in Philadelphia, if I mistake not, more than thirty years ago. He was aware of the prejudices which existed against those who practised as dentists, and he knew the low estimation in which the art was viewed (deservedly though it might be); and he knew at the same time that if it were fully understood and faithfully followed, instead of being an inferior, almost useless and some-

times mischievous calling, as was the *whole* of surgery in the days when barbers were leaders in the practice, it might be rendered highly serviceable to mankind. And he commenced his labors with the determination that, so far as his own personal efforts were concerned, its usefulness should be demonstrated and its character improved.

Dr. H. was faithful to his resolution, and he lived to see the good effects which he knew must result from his exertion. He was satisfied that dentistry was not comprised in the shiftless exercise of an assumed or imperfectly-taught mechanic art, but must depend on a thorough knowledge of the anatomy, physiology and diseases of important organs in the human system, and on the judicious, skillful, and faithful treatment of those diseases.

He brought much of this knowledge to his aid in the commencement of his labors, and much of the skill which was requisite to give him confidence and success in his pursuit. He possessed a mind quick to discern, powerful and patient to investigate, firm and untiring to pursue; and, above all, benevolent and honest in the performance of professional duty. He valued his profession for the power which he possessed in it, not of replacing by artificial means the teeth which had been lost, but of preventing the suffering and destruction which the diseases in these organs occasioned; for he did not view the affections of the teeth as the mere process of *decomposition* in *dead ivory*, but of *diseases* of *living bone*. The term *caries*, or decay, in its common acceptance, he knew had conveyed erroneous notions, even to physiologists and surgeons, which had been extremely prejudicial to the practice of dentistry.

Dr. H. enjoyed a physical constitution which enabled him to devote the whole of his time to the study and labor of his profession. His ambition was, to do the best for his patients that the science and art of dentistry would admit; and so decidedly superior were all his operations for saving the teeth from disease, to those of most other men, that it has rarely been difficult to distinguish them, when viewed in comparison; and in cases where a few years had tested the good effects of both, the operations of very few men in our own country, or any other, would bear a comparison with his. And great must be the number of his contemporaries, both old and young, whose teeth must furnish testimony to these truths so long as they shall live.

Dr. H. was fully sensible of the importance of what is called a medical education, as a preparation for the practice of dentistry. He strove, both by example and conversation, to demonstrate the usefulness of this department of surgery, and to show the necessity of its receiving a due degree of protection from our medical institutions. He felt that quackery was as mischievous in this branch of practice as in any other, and should not be countenanced by medical men. He thought that the treatment of diseases of the teeth was as sure in its beneficial effects as that of any part of surgical practice; that it was a practice depending for its usefulness on a knowledge and application of the same principles; that instruction in the particular anatomy, physiology, diseases and treatment of the teeth, should be given by lectures and demonstrations in our medical schools; and, above all, that young men entering on the practice of dentistry should not be acknowledged by the medical faculty as worthy of

public confidence, on any other grounds than their having prepared themselves by the same course of studies, and obtained the same testimonials of approbation, which are required of those who are about to engage in any other department of medical practice.

He was fully of the opinion that without such provision and protection, this branch of the healing art would always be, in its general character, very much below that which its real importance, if clearly understood and demonstrated, would tend to give it. To withhold such provision and protection, was, in his view, but favoring imposition on the public, and discouraging improvement in the profession.*

Dr. H. did as much, probably, as any individual could have done in his day, for the improvement of dentistry ; for his example has had an influence in almost every section of our country. He knew that he was not singular in his view of dentistry, nor alone in his efforts to improve it ; and of the few whom he knew to be faithful laborers with him in the cause, he was ever ready to speak in the language of commendation.

Through the whole of his professional career, he was a devoted and faithful servant of his fellow beings, for the relief of their sufferings and the security of their enjoyment. And when it is stated, as it truly may be, that until the day of his death he had been without a professional rival or equal, in the city of his residence, it will be vain to attempt to describe how greatly his loss must be felt. He enjoyed the well-earned esteem and confidence of physicians of the highest standing in the city, and his memory must long be cherished with gratitude by all who have experienced his professional services. That his labors will always be worthy of the imitation of his successors, is a testimony which will ever be borne by

A MEMBER OF THE PROFESSION.

Boston, January 24, 1833.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JANUARY 30, 1833.

MORTALITY IN NEW YORK.

WE have before us the New York return of mortality for the year 1832, which exhibits a fearful picture of the ravages of cholera in that city. It appears that the whole number of deaths was 10,359, which is 3996 more than has ever occurred there before. Of this number 3515 were of cholera ; and the balance, 6844, represents the deaths from all other diseases. The deaths in 1831 were 6363 ; so that independently of cholera, the mortality has increased nearly 8 per cent. It is estimated that during the same period the number of inhabitants had increased from 210,000 to 220,000, or 5 per cent. There is therefore an actual increase of mor-

* The substance of these opinions and views, the writer learned from the lips of Dr. Hudson, and from some of his most respectable and intelligent patients.

tality beyond that of the population, independently of what is attributed to the cholera.

In comparing this mortality with that of our own city, we find the proportion to be nearly 6 to 1. But if from each be deducted the deaths by cholera, this proportion will then stand 4 to 1; while that of the population is about 7 to 2.

Among the diseases mentioned, we notice that 1415 have fallen victims to consumption, while the number which have died of that disease in this place is 246, or 1 to 6. Scarlet fever numbers 221 victims; a small number, when it is considered that the mortality from the same disease here was 199. Typhus gives 84; in Boston, 45. Croup, 179; in Boston, 40. Measles, 290; in Boston, 70. Hooping cough, 63; in Boston, 22. The remark we made with regard to the mildness of this disease here, applies equally to that city. The proportion of deaths to the whole population, rating it at 220,000, is 1 in $21\frac{1}{4}$. In 1831, rating it at 210,000, it was 1 in 33.

BENEFITS OF THE WARM BATH.

AMONG the means of preserving health and preventing the assaults of disease, there is none of which the importance is more generally recognized than that of personal ablution by warm bathing. It is one, however, the benefits of which the good people in this city have been rather slow to realize. Until within two years we had but one public establishment for bathing, and that was so little patronized as scarcely to pay the necessary expenses for maintaining it. At present we have three or more, all of which we believe command a fair share of patronage. Still it is certain that the advantages of warm bathing are less highly rated here than in many other American cities, and much less so than in Europe. One reason for this may be that our vicinity to the sea, and the facilities afforded for the cold bath during the summer season, have tended to give this a decided preponderance in the estimation of our citizens, and to bring the other mode into comparative disrepute. There is also among us some remains of a prejudice that warm bathing during the winter is calculated to relax the system and render it more susceptible of cold. Experience is daily confuting this idea, and convincing those who are willing to make the trial, that they may indulge in the luxury of a warm bath in the coldest weather, not only without danger but with the most salutary effect. There is indeed far more analogy than is generally supposed between the effect of warm and of cold bathing. The primary effect of both is to diminish the cutaneous transpiration; for it is very well known to those who have examined the subject, that this is the general effect of moisture externally applied, through a very considerable range of temperature. By the immersion itself, therefore, the perspiration, instead of being increased, is checked or entirely arrested. Of this

fact any one may easily convince himself, by examining, immediately on leaving the water, the state of any portion of the surface from which the fluid has been gently removed with the least possible friction. It will be found to want the moisture which the skin naturally possesses, and to be in fact more dry than usual. On using friction, however, the activity of the extreme vessels is soon manifested, and the whole surface breaks out in a profuse perspiration. Now the reaction which takes place in this case is a vital reaction, produced by the powers of the system in the healthy performance of their functions. It is not that the fibres of the skin are relaxed by the water, so that a greater facility is afforded to the perspired fluid to escape. Still less is it that the pores are freed from offending matters which previously plugged them up, and thus rendered pervious to moisture. Nature is not thus dependent on our assistance for effecting her operations. The analogy, therefore, between the effect of warm and cold bathing, consists in this, that in both cases the glow which is or should be produced is the effect of reaction. But in the case of warm bathing this reaction is the more sure to follow, as there is no preceding chill. To the feeble, especially, and those who, therefore, particularly need a renewed action of the cutaneous vessels, the warm bath is at once the most grateful and the most beneficial of the two. Unless the system possesses a certain amount of vigor, the chill which is produced by immersion in cold water is not succeeded by reaction, no perspiration follows, and instead of renovated vigor the individual experiences only lassitude and exhaustion. The surface is pale, the extremities benumbed, the pulse languid; while the lungs are congested and the stomach oppressed. Such are to many the effects of cold bathing, even during the short season in which it is viewed as an appropriate recreation. Of course there are few or none who choose to try the experiment of its effects during the rigors of winter. At all seasons the warm bath is at once a luxury and a benefit; and when it can be enjoyed with so little sacrifice of time or money, we cannot but feel surprised that the practice is not more general among us.

In connection with this subject, a brief account of the attention paid to bathing by the ancients, and of the facilities enjoyed by them for this purpose, will not perhaps be unacceptable to our readers. That which we subjoin is principally taken from a short article on the subject, contained in the *Révue Médicale* for August, 1832.

The use of baths in certain public establishments appropriated to the purpose, appears to have been known from time immemorial, in the cities of the East. It passed from Asia to Greece, and from Greece to Italy. It was not solely in order to procure to the inhabitants of Rome a healthy beverage, that an immense volume of water was conveyed to the city to be there distributed into its different regions; another purpose was to maintain a sufficient number of public and private baths. By the descrip-

tion which Vitruvius gives us of these establishments, we learn that those who frequented them did not confine themselves to mere ablution, but that they used also vapor baths in apartments constructed expressly for this purpose. It appears, indeed, that among the Romans a complete bath was a complicated affair, including a series of gymnastic exercises. But this kind of bath was adapted only to the luxurious and idle, while those for the common people were far more simple. Even those establishments, however, which were open to all classes, were so extensive and so well arranged as to form some of the most splendid edifices in Rome.

The hour at which the baths were most frequented in Rome, was 2 or 3, P. M., immediately before their principal meal. The sound of a bell then announced to the citizens that the warm baths were about to be closed, and that those who came at a later hour must be content with a cold one. The use of public baths, introduced among the Gauls by the Romans, was continued after the introduction of Christianity; this, at least, is what we are authorized to conclude from the general custom which prevailed of constructing baths in the monasteries. It is probable that in the 12th century the use of vapor baths, with which the crusaders had become familiar during their stay in Palestine, became on their return more general than before. These vapor baths were taken at a certain price in public bagnios, which had taken the place of the ancient *thermæ*. Among those who frequented these bagnios, some were content with taking a simple vapor bath, while with others this was only a preparation for passing into a bath of warm water, as is the case in the public baths of the East. The general custom, in the 13th and 14th centuries, was to bathe before dinner.

There is probably no city in Europe where bathing is carried to such extent as in Paris. The bathing houses are very numerous, and are furnished with water partly from the river and partly from the new canal leading from the Ourcq. The establishment of Tivoli, the first in which factitious mineral waters were introduced, dates from the year 1800. In 1816, there were in Paris five hundred public bathing houses; the number at present is nearly four thousand.

LUNAR CAUSTIC BLISTERS.

THERE are many inconveniences attending the use of the common blisters. In some persons the degree of strangury they induce almost precludes their application, and always they are slow in their action, and produce a sore requiring careful and frequent dressing. In the Transactions of the Medical and Physical Society of Calcutta, the lunar caustic is proposed as a substitute for cantharides in the production of vesication. The part to be blistered is slightly wet, and a stick of caustic slowly drawn over it, first longitudinally, and then across. In about ten hours the fluid may be discharged by punctures, and no dressing will be requir-

ed—the cauterized cuticle forming a sufficient protection to the inflamed surface beneath.

This plan has been pursued, it seems, for a long time by Mr. Boswell, who proposes the plan to the profession, and is approved by the intelligent Secretary of the Society. Mr. B. has put on more than thirty of these blisters, during a pneumonic case ; and his preference is founded on the more immediate action and powerful effect of this method, and its entire safety as respects the urinary organs ; it is also less troublesome and less painful, as it requires no dressing, and may be used without a moment's delay, the means being easily carried in a pocket case.

DEATH OF A FRENCH SURGEON BY THE HAND OF A PATIENT.

MANY occurrences which, in common times, would attract and rivet the attention, have been entirely obscured of late, by the thick and changing cloud of political events that still continues to absorb the public view. But there are others, that even in the midst of that cloud, are encircled with too intense a glory, or dyed with too deep a blackness, to be concealed—events, the nature of which is so extraordinary as to compel notoriety. Among the latter we have to record the deliberate assassination of M. Delpech, a French surgeon of great distinction and advanced age. This deplorable murder has excited at Montpellier, the residence of the deceased, the most intense and melancholy interest ; and wherever else the tidings have come, they have produced a corresponding sensation. The account we have of this transaction is as follows :—The murderer, whose name was Demptos, had been recently under the professional care of M. Delpech. He was treated for varicocele, and it would seem that the cure was attended with circumstances that rendered it imprudent for him to form a matrimonial engagement. It is further stated that M. Delpech, having been consulted by a family into which Demptos wished to marry, gave them some intimation of the patient's condition. Demptos met M. Delpech at the theatre the night before the fatal deed, and it is thought that he demanded from M. Delpech a retraction of what had been said to the family. However, on the 29th, the assassin stationed himself in the balcony of the house where he lodged, and watched the approach of M. Delpech's cabriolet. It came, when with one shot from a double-barrelled gun he killed the servant, and with the other the master. He then retired into the house, and blew out his own brains with a pistol. M. Delpech expired in a few minutes. His obsequies were performed on the 31st, amid the general lamentation of the people of Montpellier. Orations were pronounced over his tomb by MM. Duges, Boyer, and Trinquier. M. Delpech was in his 60th year. He was a Chevalier of the Legion of Honor, professor of clinical surgery to the faculty of Montpellier, surgeon-in-chief to the principal hospital, and a member of nu-

merous learned societies throughout Europe. On examination of his body, it was found that the ball had entered just above the nipple of the left breast; after fracturing a rib, it passed through the upper part of the lung, tore the arch of the aorta, divided the apex of the right lung, and came out at the shoulder of that side, after a fracture of the humerus.

Ipecacuanha in Cholera.—By a letter addressed from Baron De Viculine, a Russian officer of rank, to a particular friend, dated Barken, 10th March, 1832, we are informed that in his vicinity ipecacuanha, in large doses, was given in cholera with great benefit and success. Of this powder at first 40 grains were given; and the dose, it is said, was increased gradually to 300, that is, 5 drachms. We have no precise information on the effects of this remedy thus administered; but it is said, rather vaguely, that out of 100 attacks at least 90 were cured.

We have tried this remedy in several cases of cholera, and with the following results. In one case of pure pulseless collapse a drachm of ipecacuanha was given, and was not followed by vomiting. An hour after, another drachm was given, and was equally ineffectual in producing vomiting; and the man, who had been ill for two days, died next morning. In another case of collapse, also without pulse, but with great heat at stomach, a drachm of ipecacuanha was given, and did not induce vomiting; and after an hour a similar dose was given with the same want of effect. In a third case, in which, with occasional vomiting, the purging was profuse and pulse weak, 30 grains of ipecacuanha were given, and did not produce vomiting in the course of half an hour, when other 30 grains were given, and were followed by imperfect vomiting. A quarter of an hour after, other 30 grains were given; and after the lapse of about three quarters of an hour, copious vomiting took place. The purging now stopped; the pulse became fuller in the course of a few hours; and the patient rallied so as to be convalescent in two days. Two days after, however, he had a relapse, and was with difficulty brought out of the incipient stage of collapse.—*Edinburgh Medical and Surgical Journal.*

Improved Method of Embalming.—A singular and highly important discovery has recently been made by Messrs. Capron and Boniface, chemists, at Chaillot. By a process which they keep secret, and to which they have given the name of 'Momification,' they have succeeded, after passing a number of years in experiments, in so modifying and perfecting the known processes of preserving bodies as to reduce them to mummies, leaving all the forms unaltered. All the elements of disorganization which show themselves in the human body so soon after death are completely destroyed, and not only the external body, but all the viscera, the lungs, the heart, the liver, and even the brain, are perfectly preserved; the features also remain so perfectly uninjured, that correct portraits may be taken at any length of time after death, and, as the body is not enveloped in bandages as in the Egyptian method, the natural forms are perfectly preserved. The operation requires but few days, after which the dead bodies may be preserved in a room or vault, or interred in the ordinary way, without being accessible to worms. They may also be exposed to all the varieties of the air, either in a standing or sitting position, without undergoing any alteration.

Anthracite in Wrentham, Mass.—Specimens of this mineral have been forwarded to us by Mr. S. Day, in a letter dated Providence, R. I. Oct. 11. It is stated to be newly discovered—that the boring has been carried to eighty feet, and the excavation or shaft to sixty; that the coal lies in strata of different depths, interspersed with slate, and that it is proposed, should the prospect continue fair, to petition the legislature for a charter of incorporation, and in the spring to push their enterprise with vigor. The coal appears like the European anthracite, and resembles that of Rhode Island more than that of Pennsylvania. The latter State possesses such vast resources in this mineral, and of such admirable quality and easy acquisition, that prudent men will look well to every undertaking, which must depend, in a degree, upon successful competition.—*Silliman's Jour.*

Dr. Spurzheim's History.—In a very interesting account of the life, character and labors of this distinguished philosopher, in the last number of *Silliman's Journal*, we find his physical history recorded in the following comprehensive paragraph.

In his last sickness he appears to have relied too confidently upon the strength of his constitution, and the simplicity of his habits of living, which led him to neglect the use of medicine; his vigorous intellect sunk under the exertion of its own intense energy, and his physical powers were broken down by his mind; as was happily said by another, *the sword eat up the scabbard*. Such a catastrophe should prove a warning to all ardent, intellectual men, who, when impelled by great motives, are in peculiar danger of prostrating their faculties, and of coming prematurely to the grave.

M. Cuvier.—The French nation is doing for Cuvier what the British people are doing for Sir Walter Scott—raising a subscription to perpetuate his memory by a visible and lasting monument. The managing committee have invited the authors of works on Natural History, and other scientific writers of celebrity, to contribute copies of their works in aid of the fund; and they make an earnest appeal to all who feel the immense void created in the literary world, by the loss of their great contemporary.

The celebrated Professor of Anatomy, Anthony Scarpa, died at Pavia, on the 31st October last, in the eighty-fifth year of his age. He left an ample fortune.

Spurzheim's Works.—Messrs. Marsh, Capen & Lyon, of this city, propose publishing revised editions of the works of the late Dr. Spurzheim.

Whole number of deaths in Boston for the week ending Jan. 26, 21. Males, 11—Females, 10. Stillborn, 1.

Of inflammation of the lungs, 1—lung fever, 4—decline, 1—dropsy, 1—intemperance, 2—croup, 1—brain fever, 1—teething, 1—disease of the heart, 1—liver complaint, 1—consumption, 2—infantile, 1—old age, 1—convulsions, 1—suicide, 1—abscess, 1.

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RUSSIAN VAPOR BATH.

IN some very general remarks we took the liberty to offer last week, on the subject of warm bathing, the *vapor bath* was occasionally alluded to. In order to connect with the expression a more definite idea, we have transferred to our pages the following very graphic account of the Russian vapor baths, drawn by one who resorted to them for purposes of experiment.

Account of the Russian Vapor Bath. By T. S. TRAILL, M.D. Communicated to the Edinburgh Philosophical Journal by the Author.

THE existence in Hamburgh of two establishments where the Russian Vapor Bath is used, brought to my recollection the descriptions given by Acerbi, and other travelers, of the intense heat and sudden transition to cold, so much relished by the nations of Northern Europe, and raised my curiosity to experience in my own person the effects of this singular species of bathing. I was further induced to take this step from finding myself suddenly oppressed with a violent feverish cold, which raised my pulse considerably above 100°, and rendered me little able to join the public dinner table in the Apollo Saal.

Accompanied by two friends who wished to make the same experiment, I repaired to the ALEXANDERBAD, which is under the direction of its proprietor, a Jewish physician, who had liberally opened it gratuitously to the members of the Society of *Naturforscher*, then assembled at Hamburgh. We were ushered into a very neat saloon, provided with six couches, beside each of which stood a dressing table, and a convenient apparatus for suspending the clothes of the bather. Here we undressed, and were furnished with long flannel dressing-gowns and warm slippers, after which we were all conducted into a small hot apartment, where we were desired to lay aside our gowns and slippers, and were immediately introduced into the room called the bath, in which the dim light admitted through a single window of three panes, just sufficed to show us that there were in it two persons, like ourselves *in puris naturalibus*; one of whom was an essential personage, the *operator*, the other a gentleman just finishing the process by a copious affusion of cold water over his body. This sudden introduction into an atmosphere of

hot steam was so oppressive, that I was forced to cover my face with my hands, to moderate the painful impression on the lips and nostrils, and was compelled to withdraw my head, as much as possible, from the most heated part of the atmosphere, by sitting down on a low bench which ran along two sides of the bath.

At first our modesty felt some alarm at our perfect nudity, and that of those around us ; but I soon *felt* that it would be absolutely impossible to endure the contact of any sort of covering of our nakedness in a temperature so high, and consoled myself with the reflection that it was no worse than the promiscuous bathing I had so often practised at the sea-baths of Liverpool ; an exposure which, notwithstanding my passion for bathing, was always disagreeable at the commencement of each season, but to which custom had soon rendered me indifferent.

The bath room is about fifteen feet long by about as much in breadth. It is lined with wood, rendered quite black by constant immersion in hot steam. On two sides it has three tiers of benches, or rude couches, each of which is calculated to hold two persons, with their feet toward each other ; so that twelve persons might bathe at the same time. The lowest bench projects farthest into the room ; they rise two feet above each other ; and each has a wooden pillow at the ends.

In one corner of the farther end of the apartment stands the furnace, which is supplied with fuel from without, and has a thin arch of fire-brick turned over the fire, against which the flame reverberates until the arch is red hot. Over this arch is built a small brick chamber, the only aperture to which is by a small door about two feet long, and fifteen inches wide, opening nearly to the level of the arch. To increase the heated surface, numerous small earthen jars, or broken pottery, are piled on the arch, and all are kept up to a low red heat. On these, a basin of water is occasionally dashed ; and the clouds of steam which instantly issue from the door of the heated chamber, form the source of heat employed to maintain the temperature of the bath.

In the corner opposite to the furnace is a reservoir of cold water, into which, during our stay in the bath, the person who manages it frequently plunged to cool his surface ; a precaution not unnecessary for an individual who is exposed daily eight hours, stark naked, to a temperature quite oppressive to the uninitiated. Yet this exposure and this alternation cannot be unhealthy ; for I never saw a more athletic man than this person, who informed me that he had been constantly engaged in this occupation for sixteen or eighteen months.

The centre of the ceiling of the bath room is perforated by numerous holes which allow a copious shower bath of cold water to descend on the head of the bather, when a valve managed by a cord is opened.

Such is the apparatus necessary for a Russian vapor bath.

After remaining some time in the bath, the first sensations of oppressive heat subsided, and I ascended to the second tier of benches, the wood of which, however, was somewhat cooled by the plentiful affusion of cold water. At each remove this operation is repeated ; otherwise the contact of the wood would be insupportable to the skin. It is needless to say, that the perspiration very soon began to run from every pore,

not merely as a moist exhalation, but ran off in copious streams. This greatly moderated the sensation of heat.

After lying extended for some time on the second tier of benches, a bucket of cold water was dashed on the upper one, and we removed there ; but the heat, so near the ceiling, was fully as oppressive as on first entering ; and I found it necessary to allow the air to enter my nose through my fingers. If I inhaled it with the mouth wide open, I felt an oppressive heat in my chest ; but by degrees even this degree of heat became supportable ; though I never was able to sit upright on the upper bench ; so strong was the temperature of the humid atmosphere close to the ceiling.

While we were groping our way from bench to bench, the assistant more than once plunged headlong into his cold bath, to refresh himself ere he commenced on us the next part of his professional occupation.

We were one by one requested to descend to the second tier ; and the assistant, grasping in his hand a bundle of birch rods, began assiduously to whip his patients who lay extended on the bench at full length, from head to heel. This application differs essentially from the well-remembered scholastic birch discipline ; for the leaves are left on the twigs, and the sensations produced in no way resemble the effect of the instrument employed in English schools to convey a knowledge of Greek and Latin into the heads of our youth. In fact, this species of whipping is performed very dexterously, with a sort of brushing motion, from the shoulders downwards ; and the application becomes general over the body and limbs, as the bather turns on his wooden couch. The sensations produced by this operation are agreeable, and are very far from producing that excessive redness of the surface described by Acerbi.

The operator now anoints the whole body with a liquid mild soap ; and, after again mounting to the upper tier for some time, we descend one by one to the middle of the floor, where a powerful affusion of cold water from the shower bath in the ceiling removes every vestige of soap. This sudden affusion of cold water is remarkably grateful : it is scarcely possible to describe the effect, which is highly exhilarating and refreshing.

It is usual again to undergo the steaming after the temperature of the bath is increased by the affusion of water on the glowing pottery in the furnace. For this purpose, the operator opens the door above described, and placing us out of the direction of the immediate efflux of the steam, he dashes, in successive jets, a small bucket of water into the furnace. The apartment is instantly filled with clouds of steam, at a high temperature ; and when the door of the aperture is closed, we resume our places on the benches, gradually proceeding to the highest, as we become inured to the temperature. From the upper tier we finally descend to have the cold shower bath repeated ; after which we leave the bathing-room, are rubbed dry by assistants in the small heated apartment, where we resume the flannel dressing-gown and slippers, and are reconducted to the saloon, where we find the couches spread with blankets ; and we recline for half an hour in a most profuse perspiration, and in a state of luxurious languor and mental tranquillity.

On a subsequent occasion, I provided myself with the means of ascertaining the temperature of the bathing-room, and noted its effect on the

pulse of myself and two other bathers. The heat is generally from 45° to 50° of Reaumur ; that is, from $133^{\circ}.25$ to 144.5 of Fahrenheit. On the occasion referred to, it ranged in the bath, during my stay, from 32° to 46° R., = $126^{\circ}.5$ and $135^{\circ}.5$ F. in the lower part of the bathing-room ; but I was unable to examine the temperature near the ceiling, on account of the thick vapor, and the intensity of the temperature, which affected my eyes. This temperature, high as it is, is far short of what Acerbi asserts of the Finnish baths ; he says that they reached from 70° to 75° of Celsius, = to 158° to 167° of our scale : but perhaps his thermometers were subject to the influence of the open fireplace in the rude baths of that people ; for their furnace consisted of a few loose stones piled into a sort of rude arch, over a fire on the floor of the hut : or perhaps he did not accurately ascertain the temperature ; as he never entered the bath but momentarily, for the purpose of placing his thermometer ; and I am confirmed in this by observing that the Finnish operator, in his plate, appears dressed in her ordinary clothes, which I should think insupportable in so high a temperature as he assigns.

The effect of the Russian vapor bath is to accelerate the pulse, which soon regains its natural standard on leaving the bath ; and, when I took it in a highly feverish state, I was within an hour after entirely free of fever, and able fully to enjoy the philosophic soirée that evening.

On bathing a second time, I was accompanied by the same two friends : our pulses were about seventy-four in a minute. On just coming out of the bath,

Dr. Traill's pulse,	-	-	-	=	116
Mr. Johnston's do.	-	-	-	=	88
Mr. Palk's do.	-	-	-	=	88

A quarter of an hour afterwards, while on the couch, they were as follows :

Dr. Traill's pulse,	-	-	-	=	114
Mr. Johnston's do.	-	-	-	=	88
Mr. Palk's do.	-	-	-	=	88

After being dressed, and sitting in an adjoining coffee room, perhaps one hour after the bath,

Dr. Traill's pulse beat,	-	-	-	=	88
Mr. Johnston's do.	-	-	-	=	88
Mr. Palk's do.	-	-	-	=	80

These experiments show the great difference in the excitability of the heart in different individuals, from exposure to the same heat. My pulse, in my best health, is about seventy ; since I had the gout it ranges from seventy-four to eighty, but is very easily excited ; and I have often found it raised to more than ninety by an interesting conversation, or even a cup of strong tea.

The process of the vapor bath is completed by a plentiful supply of towels, with which we gradually dry the surface, while we are well *rubbed down* by an assistant. We then resumed our dress, and retired to a coffee room, where there was a plentiful supply of newspapers, and had a cup of good coffee for twopence sterling. As I have already stated, the baths were free to the *naturforscher* ; but I ascertained that the whole expense of the bath and its accompaniments is not more than one

marc, or sixteenpence English, and for twopence more the bather is entitled to a cup of coffee, and to read the newspapers in a handsome apartment.

I received from the liberal owner permission to examine his splendid establishment of vapor and shower baths devoted to females.

The vapor bath resembles that already described, but is much neater.

The variety of shower baths surprised me. They are of every conceivable form, from the powerful stream to the minute drizzling of water from orifices as fine as a needle, which jet tiny streams of warm or cold water, at the option of the bather, in every possible direction on her person. By means of polished brass arms, curved so as to enclose the body, moveable by universal joints, connected with a cistern, and perforated with innumerable minute holes, a *crossfire* of jets (if I may be allowed the expression) is kept up on any part of the body. If the bather inclines to sit, a perforated seat is placed on a large flat trough, which collects and carries off the water. Jets of water play from the various moveable arms from each side, from above, and from below, so that every part of the surface is bedewed. A general stop-cock commands the whole flow of water, while each brazen-reed is under the control of one appropriate to itself. These are at the disposal of the bather ; and each trough or bath is surrounded by curtains to skreen the person from the eyes of the assistant.

Similar shower baths are appropriated to gentlemen. The whole forms one of the most elegant and perfect establishments of the kind I have ever seen, and is a source of emolument to the spirited proprietor.

I inquired anxiously into the medical efficacy of the Russian vapor bath, and found that in chronic rheumatism, in the stiffness of limbs consequent on gout, and other long-continued inflammations, in some cases of palsy, in various cutaneous diseases, it is a most powerful and valuable remedy. While in the establishment I saw an invalid enter, who informed me, that, after severe acute rheumatism, of several months' duration, he was so lame that he had been carried by two persons into the bath ; but that, after five or six times undergoing the discipline I have described, he could walk alone as well as I saw him (he had walked, aided by a stick, from his house to the bath), and appeared confident that in a little time he should entirely recover the power and flexibility of his limbs.

From all that I could learn in Hamburgh, I am inclined to consider the Russian vapor bath as a most valuable remedy in some chronic diseases, and regret that we have not a similar establishment in any of our medical charitable institutions.

INTRODUCTION OF CHOLERA INTO EDINBURGH.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—In the month of June last, on a visit from Hyde Park to this city, I met, on board the steamboat North America, Dr. John Moir, an intelligent physician of the city of Edinburgh, who had recently come to this country in the capacity of surgeon to a British ship, and was then

on his return from a visit to the Falls of Niagara. In the course of conversation, I found he had been familiarly acquainted with the Asiatic Cholera, and had personally attended the first cases that occurred during the last winter in the city of Edinburgh, which he stated to have been introduced from the neighboring town of *Musselburgh*, six miles distant, where it had previously prevailed.

This fact being calculated to show the contagious character of the disease, and that it may be conveyed from individual to individual, and from town to town, I requested him to favor me with a written statement of the facts he had verbally related. I subjoin a copy of his letter, which you may perhaps consider to deserve a place in your Journal, among the numerous and valuable communications which it contains on the subject of cholera. I am, Sir, respectfully yours.

DAVID HOSACK.

New York, January 29th, 1833.

New York, June 18th, 1832.

DEAR SIR,—In compliance with your request, I send you, to the best of my recollection, an account of the circumstances attending the first introduction of cholera into Edinburgh. A young man left town in search of employment, and arrived at *Musselburgh*, a small town, distant about six miles from Edinburgh, where the cholera was then raging. He slept at a house, where some individuals died of cholera, and whom he saw in the course of the disease, and he himself had an attack of diarrhœa. He in a day or two so far recovered as to be able to return to Edinburgh. Here he was again seized with diarrhœa, which was checked by medical treatment. A very short time after, his mother, aged between 60 and 70, and, I believe, intemperate, was seized on the 27th of January, about 10 o'clock, P. M. with cramp in the legs, which was relieved by hot frictions and the pediluvium. Before midnight, however, she became much worse, and the cramp attacked her whole body. She had also diarrhœa and vomiting, of the appearance characteristic of the cholera. She gradually got worse. I saw her for the first time on the 28th inst., about 11, A. M., at which time she was extremely low. I thought I could feel a pulse at the wrist. The medical gentleman with me could not. Her countenance was cadaverous, shrunk, and collapsed. Her extremities were quite cold, and of a livid color; but still, she was quite sensible, and answered distinctly, but in a feeble whisper, any question I put to her. She at that time complained of no pain. I saw her in an hour and a half afterwards, with Dr. Graham. She then could not speak, but was still sensible, as she attempted to take her arm from below the clothes when I wished to feel her pulse. In about half an hour she died. I saw at the same time her son, who had been ill, and was then convalescent. The color of his skin was still, however, of a dark and dingy hue. The next two cases that occurred, were individuals who had been in the infected district about *Musselburgh*. One was an old man, whose occupation was that of collecting rags; the other, a woman who went about the country singing ballads; both, I believe, intemperate. Indeed, as far as my per-

sonal experience or knowledge went, none were attacked with the cholera except such as were intemperate, or debilitated by previous disease or poverty. From the hurry I am in, I hope you will excuse the desultory and confused manner in which I have written the above short statement. If there are any other points upon which you wish information, I will answer them as far as I can, if you will be so good as to send me a note of them. I remain, dear Sir, your obedient servant.

THOMAS MOIR, M. D.

TO DAVID HOSACK, M.D. *Surgeon of the British Ship Science.*

N. B. The two cases alluded to immediately after the old woman, were both seen by me. These both lived about the head of High Street, near the Castle Hill. The case of the old woman occurred in a close, in High Street, half way down, between the Tron church and the Canongate.

USE OF THE TAMPON IN UTERINE HEMORRHAGE.

[Communicated for the Boston Medical and Surgical Journal.]

I was called to see Mrs. A., aged about twenty-one years, on the 7th of February, 1827, and arrived there at daylight in the morning. She had had three children, and was then in the seventh month of gestation. She informed me that, about two months previous to this, she received an injury, and had not perceived any motion of the fœtus since that time. About a week before my call on the seventh, there was a little discharge of blood from the vagina; and on the evening preceding my arrival, active pains commenced. Immediately after I came, I suggested the propriety of an examination, which was readily granted, and the ovum was found protruding at the external orifice, which was directly expelled by the uterus. She had had some hemorrhage before my arrival, but in a short time it increased, and afterwards became profuse. I directed her to keep quiet, and gently rubbed the abdomen, which caused some pain. Cloths wet in cold water were applied to the pubes; and others, wrung from hot water, were at the same time applied to the feet and legs. I gave a dose of catechu, soon followed by the second; but seeing no good effect, I gave a full dose of acetas plumbi. My patient had now lost so much blood, that she fainted nearly all the time, from which state she was relieved by the exhibition of light cordials, and sprinkling the face frequently with cold water. I then introduced the tampon into the vagina, after wetting it with cold water, which completely stopped the hemorrhage in a few minutes; for on removing it afterwards, only a small quantity of coagula was discharged. She had so much recovered by noon, I considered it safe to leave her, after giving positive orders that she remain perfectly quiet as she then was, lying in a horizontal position. At 4 o'clock, P. M., I called again, and found her a little recovered. On the next day she was much recruited, and in about a week was able to take the care of her domestic concerns.

I am sensible that one case does not prove much, neither do I wish it to have an undue weight on any man's mind, for I have no particular theory in view, which I wish to support. It is my opinion that the tam-

pon is a very valuable remedy, in many cases of uterine hemorrhage ; and I think it was a powerful means in saving my patient from an untimely grave.

It will be noticed that I gave cordials, of which some may question the propriety. The fainting did not stop the hemorrhage, and the patient appeared to be almost in articulo mortis, which had an influence on the above prescription ; and there was another circumstance that strongly called for the practice, viz. she fainted previous to almost every gush of blood. In proof of this practice, you may find a passage in Dewees' Midwifery, by referring to pages 417 and 418, which is as follows. 'Again,' says Dewees, 'I cannot agree with Dr. Denman, in his prescription of "cordials and stimulants," in the state of extreme exhaustion to which women are sometimes reduced by floodings. I think I am as certain of the propriety of this practice as any other practice whatever ; and have employed it when the pulse was very much reduced, or extinct, the extremities cold, the breathing humid and short, vision imperfect, and voice almost inaudible, with the most decided advantage. It is true, I administer them with caution, but with steadiness, and in such quantities as shall neither offend the stomach nor invite too much reaction. In this I persist, until there is evidence that the system will react—so soon as this appears, I desist from all stimuli, until a fresh necessity is created.'

In making these remarks, I have the good of mankind in view ; and if you think they are worthy a place in your valuable paper, you will please give them an insertion.

Respectfully yours.

JOHN ROSE, M.D.

Rensselaerville, Albany Co. N. Y., Jan. 26, 1833.

POISONING FROM IVY.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—Recently looking over some of the late numbers of the Medical Magazine, which I had not read regularly as they came to hand, I met, in the number of that work for last November [No. V.], pages 282 and 283, some remarks on poisoning from Ivy, or the *Rhus radicans* ; in one of which, the writer says, 'We do not find any account of its symptoms or mode of treatment in books.' The writer, I trust, will excuse me, if I state to him that he will find a most learned, ingenious, instructive and satisfactory Inaugural Dissertation 'on the Rhus Vernix, Rhus Radicans, and Rhus Glabrum,' by Dr. Thomas Horsfield, of Bethlehem, Pennsylvania, in a volume of 'Medical Theses,' for the year 1805, published by Dr. Caldwell, of Lexington, in Kentucky, then of Philadelphia. The work is now scarce, and I believe out of print. I have seen but few copies besides my own ; but I am pretty certain I have seen a copy of it in the library of the Massachusetts Medical Society, to which the writer can probably have access, if he chooses, and make such use of it as he may think proper. I give this notice, Mr. Editor, if you please, in the Boston Medical and Surgical Journal, presuming it will have a more extensive circulation in that work than in the Medical Magazine.

Respectfully yours, &c.

R. HAZELTINE.

Lynn, Feb. 2d, 1833.

MEDICAL INQUIRIES AND REMARKS.

[Communicated for the Boston Medical and Surgical Journal.]

It has begun to be observed by other professions, and by the public, that the medical profession are unfixed in their opinions ; that they decide upon nothing positively, even as individuals ; and that any two or more of them pretty uniformly disagree. In relation to this subject, a Judge of the Superior Court in one of our States, made lately the remark, that physicians were the worst witnesses that were called before a court, and the most apt to perplex and mislead a jury. Is it not time for some master mind, of our liberal art, to arouse and to teach us how to think, how to decide, and what to say, upon great leading and important points ? To what paramount authority should we, the small fry of the medical corps, appeal, were we censured for mal practice, or were we called on before a court of justice for our opinions upon a case of poisoning, or strangling, or infanticide ? or, in the common intercourse of life and society, by an inquiring public, whether the cholera was contagious or spontaneous ; whether it was a febrile, spasmodic, cachectic, or a local disease ; what was the best and most successful mode of treating it, and whether it is indigenous or imported ?

The yellow fever employed many pens, until the typhous fever appeared as an epidemic, and then many of our bright geniuses took up the latter subject ; but in the conclusion, nothing was concluded upon either.

Since the appearance of cholera, an immense quantity of paper has been blackened, which might as well have remained unstained, if we are to have no general points settled. It is not to be denied that,

‘ Questions may be asked by fools,
Wise men can’t answer for their souls.’

Still, there is generally, upon every question which may be raised upon cases, common and uncommon, a weight of evidence which will not leave the scales equally poised and standing still, but which will incline the balance one way or the other. And when this is all that can be accomplished, it surely, and seriously, and speedily, ought to be done.

Can our numerous medical schools, with their abundant supply of professors, let loose their pupils on the public without instructing them how to meet such queries and questions as those to which we have adverted ? But first let the instructors of others be united among themselves. Let a medical convention of the Professors, of all the Medical Schools in the Union, meet and settle the paramount authors and authorities of our profession. If books are not already in existence, which have decided upon these great questions in a satisfactory and scientific manner, let such convention determine yea or nay, and then appoint some of their number to supply the deficiency if it is lacking, or concentrate it if it exists already. There is surely no lack of talent to do this ; and there is an immense number of facts floating in our periodicals, which demand culling, assorting, and condensing and converging to a point.

In relation to cholera, it is desirable that one point at least should be decided, because it is a feature which has a bearing upon philosophy, chemistry, physiology, and pathology. This is, whether the ‘ icy coldness ’ of the body and evacuations, of which we have so frequently

heard, actually, and by thermometrical experiment, exists. Upon this point I have not seen a single publication, either foreign or domestic. I however wrote to one medical gentleman in New York,* upon the subject, and from his letter I extract the following answer. He says, 'The temperature of the body in collapse reduces the thermometer from 76 to 52 degs. by actual experiment ; i. e. when the thermometer stands at 76 degs. in the room of the patient, the application of it to the arm-pit will reduce it to 52.' This is sufficiently explicit, and we wish to see the remarks and results of others, if any, who have tested this very curious and important point in the same way.

If there be in cholera an actual secretion of cold, it would seem to do away the long established opinion of *cold* being a quality merely negative. We should, Mr. Editor, be pleased to see, through the medium of your Journal, the detail of experiments upon this interesting subject.

FOTHERGILL.

Lebanon, Ct. Jan. 26, 1833.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, FEBRUARY 6, 1833.

IN the volume of this Journal which closes with the present number, will be found a fund of valuable information, which the reader cannot fail to appreciate. He will, doubtless, on a review of its pages, accord to us the credit of having fulfilled our promise of offering a faithful and early record of whatever valuable facts should be brought to light respecting the pestilence which has passed through the country. In the seventh volume of this Journal will be found concentrated most of what is interesting and instructive in the history of this disease ; and our acknowledgments are due to those friends who have contributed so liberally to enhance the value of our periodical in this particular. An unusual measure of interest has certainly been displayed of late, in the improvement of medical science in all its branches. Communications have come to us from eminent men in various quarters of the country, unfolding the result of their investigations and experience ; and we cannot but congratulate the reader on possessing, in so compact a form, such a fund of that kind of information which is most available at the bedside of the sick. Since the commencement of the Journal, no volume can compare with the last in the extent or value of its original department ; and we have great satisfaction in adding, that we have every reason to believe that our forthcoming numbers will be no less replete with the records of the wisdom and experience of the American Faculty.

It becomes us also to acknowledge the promptness of our medical

* Dr. Lucius S. Comstock.

brethren in appreciating the usefulness of a work like this. Their calls for it have regularly increased, particularly so within the last six months ; and its circulation is now so extensive among the most intelligent, and enterprising, and improving medical men in every State in the Union, that whatever is impressed on its pages is presented at once to the great body of the faculty for their benefit, and the advancement of the name and usefulness of whoever may select it as the medium of communicating with his brethren and the public.

No material alteration will be made in the plan of the work, and we trust that none will occur in the degree of favor with which it is received. Its pages are open to communications and discussions on every subject interesting to physicians ; and these are respectfully solicited, not only from those who have already received our acknowledgments, but from all others who have not selected other channels for their favors of this description.

The plan adopted a short time since of giving, monthly, an account of such new medical publications as we have an opportunity of examining, has been very acceptable, and been of undoubted advantage in keeping our readers apprised of the medical literature of the country. It will be continued in the next volume ; and in order that this department of the Journal may be the more complete, we invite the particular attention of the profession to the notice at the end of the present number.

TRUE METHOD OF MEDICAL IMPROVEMENT.

THE first part of an enlightened practice consists in possessing one's self entirely of the case to be treated. It requires quite as much skill to ascertain the true seat and nature of a disease, as to select and arrange the proper mode of curing it ; and in many cases it requires vastly more. This is a fact that should be present to the mind of the physician at the bedside of every patient. It should go with him to his study, and point him to the most certain method of improving himself in his profession. To acquire skill in practice, and its consequent reputation, by the mere study of *remedies*, were a vain expectation ; and yet how many are there that labor for a new remedy, and treasure up, month after month, every new application they hear made of an old one, in the hope of one day finding it avail them in their practice, whilst they devote scarcely a thought to their own improvement in the art of discrimination or diagnosis.

We put the question home to every reader. Let him reflect on his own experience, and say, whether in the majority of cases he has not been more puzzled—whether he has not labored harder to find out the precise seat and nature of the disease, than to decide on the remedy, and been less satisfied also with the result of his investigation. After inquiring with great closeness into the condition of every part of the system,

and making up an opinion where the difficulty lies, how quickly and readily the course of treatment suggests itself ! A well-educated physician, who has his principles of practice clearly established, may be said to have finished his labor when he has found out the disease ; and although it becomes us all to multiply the instruments placed within our reach, for the ultimate accomplishment of the humane purposes of the profession, yet those instruments may be the means of more harm than good, unless we cultivate a corresponding degree of knowledge of the precise condition of the system to which each is most appropriate. It is here we should labor most zealously for our advancement in medical knowledge—and in order to ensure attention to this important object, every physician should resolve never to prescribe for a case until he has made himself thoroughly acquainted with its true character. If one visit is not sufficient for this end, let it be repeated, for the express purpose—not of prescribing—but of ascertaining as nearly as possible the precise nature of the complaint. Being thus constantly reminded of our own deficiency in this kind of knowledge, no opportunity will be allowed to pass that can add to its store.

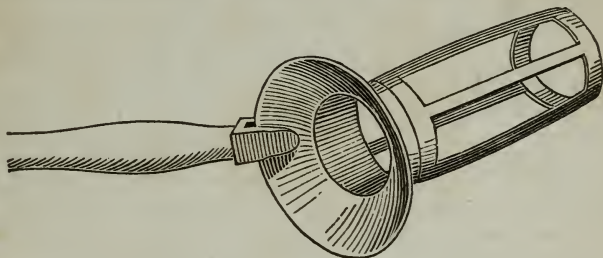
We venture to say that a majority of our readers will be conscious, after a little reflection, that they have erred in confining their researches too exclusively to the means of curing diseases, and neglecting the more important part of professional knowledge to which we have referred ; and their own good sense will apprise them how much more rapid must be their advancement, and how much easier and more satisfactory their practice, if their efforts were directed more particularly to quicken their insight into the nature of disease—if they were to perfect themselves in the important art of diagnosis. So far as we stand to the profession in the relation of caterers for their practical improvement, we shall strive to present our readers every new light that can be thrown on this most important portion of medical science.

The few observations we have offered on this point are of general application. But of the many diseases in which physicians are content to prescribe without an adequate knowledge of the enemy they have to encounter, those of the rectum and the generative organs are perhaps the most numerous. A mistaken delicacy often forbids in these cases such an examination as is absolutely indispensable to a judicious practice. A case that illustrates this remark fell under our own care, a short time since, which had previously passed through other and able hands, but without material benefit. It was described to us, and had been treated, as *piles*. In pursuance of that rule of practice which we have recommended above, an examination was required as the sole condition on which any advice would be given. It was reluctantly allowed ; and instead of piles, there existed a psoriaceous eruption about the sphincter, and nothing more. The consequence was that a few days' use of mild local applications produced entire relief ; and yet this lady had for years been subject-

ed, and that without benefit, to all the changes of medical treatment that are usually rung over an inveterate case of hemorrhoids. Parallel instances are unquestionably without number.

NEW VAGINA SPECULUM.

WE present below an instrument that has been recently invented in England, for the purpose of examining the os uteri, the vagina, and the rectum, and which possesses great advantages over the speculum in common use. Being open at the sides, it allows a view of the walls of the cavity under examination. It is made of pewter, is extremely simple in



its construction and use, and is so very cheap that every practitioner in town and country may possess one without the slightest inconvenience. We have requested Mr. Brewer, No. 90 Washington Street, to have some of them prepared, which he has promised to do ; and we trust it may be one means of rendering the common practice, in cases to which it is applicable, more scientific and successful than it has been hitherto.

A TREATISE ON MEDICAL JURISPRUDENCE.

Part I.—Comprising the Consideration of Poisons and Asphyxia. By HENRY COLEY, Member of the Royal College of Surgeons in London ; of the New York Medical Society, &c. New York. Published by W. Stodart. 1832. pp. 73.

THE first part of Mr. Coley's Treatise on Medical Jurisprudence is devoted to a consideration of Poisons and Asphyxia. His division of poisons is as follows : 1. Metals. 2. Earths. 3 Mineral acids. 4. Vegetable poisons. 5. Poisonous fish. Each article as it occurs is considered, as far as its nature admits, successively under the following heads. 1. Its preparation, or the mode if any in which it may be artificially prepared. 2. Its chemical composition, character, &c. 3. Its medical use and dose. 4. The symptoms produced by it when taken in excess, both primary and secondary. 5. The cause of death when the substance in question proves fatal. 6. The morbid appearances after death. 7. Remedies to be employed when an over dose has been taken. 8. The rationale of these remedies, or the principle on which their good

effects are produced. 9. Tests by which the presence of the substance in the stomach is to be detected. Each substance, as it comes under consideration, is treated of exactly in the same order ; a circumstance which renders the work more convenient for reference than any treatise on toxicology with which we are acquainted. It appears, indeed, from the preface, that this part of the work was intended to have been presented in a tabular form, and it is no doubt to this circumstance in a considerable degree that we owe the extreme neatness and accuracy of the arrangement. But it is not only in the form which Mr. C. has given to his treatise, that we recognize his good judgment, and his acquaintance with the wants of his medical readers. The notices under the several heads are drawn up with perspicuity and brevity, informing the reader of just what he needs to know, and omitting all unnecessary and prolix disquisition. We know not the work in which so large an amount of useful information is presented in so convenient and accessible a form. The practitioner is both directed how to infer from the symptoms what was the particular article taken, and how to apply the appropriate remedy ; or if death has already taken place, is enabled to detect the poison in the state or contents of the stomach, and thus is furnished with some clue to ascertain whether death was accidental or produced by design. It is true, indeed, that these various investigations present very different degrees of difficulty, and that some require a considerable amount of chemical knowledge and the habit of analysis, in order to make them conduce to any useful purpose. Still, a description of the mode in which even a difficult process is to be conducted will often prove useful ; for if the object to be attained is an important one, the practitioner, taking the book for his guide, may overcome the disadvantage arising from want of practice by increased care and attention, and at a second trial, if not a first, may bring his experiment to a satisfactory conclusion. As respects the detection of a poison from symptoms, this can only be expected where the phenomena produced by an article are unusually well marked, as in the case where opium has been taken. In other instances, the evidence to be derived from this source can be regarded only as subsidiary to that which is furnished from other considerations. In the great bulk of cases to which the general practitioner is called, and in which the resources furnished by toxicology are brought into use, the problem to be resolved is a very simple one. It is, having the poison given under the effect of which the patient is laboring, to suggest an appropriate plan of treatment. It is not often, indeed, that time is allowed him to consult any book on the subject in a particular case ; but if he has sufficient opportunity for a hasty reference, it will prove all-important to him that the manual which he consults is so arranged as to enable him to get at once at the precise information which he requires, and that this information is given him in concise and simple language. On this point, however, every one ought to be prepared to

act in case of emergency, without any such reference ; and in order that he may be so, the directions appropriate to each case must often be recalled to the memory. For this purpose a manual like the present is exceedingly useful, and even necessary, for it contains just what each one would wish to have gathered from larger and more elaborate treatises, and transferred to his own note book. In fine, we have met with few works which for practical utility so well deserved a place in the library of every practitioner as that now before us.

We have spoken of it, however, only with reference to that portion which relates to poisons. The considerations on asphyxia form the concluding part of the volume, and occupy about eight pages. Asphyxia is here viewed in succession with reference to the five following causes. 1. Submersion. Under this head the author introduces some valuable remarks on the proper means of restoration in cases of apparent death from drowning. 2. Suspension. 3. The irrespirable gases, viz. carbonic acid, sulphuretted hydrogen, and carburetted hydrogen. 4. Cold. 5. Electrical asphyxia, or that produced by lightning, with which the volume concludes.

NEW AND SUCCESSFUL TREATMENT OF CROUP.

WE have had frequent applications of late for the number of this Journal, published about two years ago, which contains a detailed account of the new treatment of the croup. Having no copies left, and believing, from the very great success of this method, whenever it has been adopted, that it ought to be familiar to every practitioner, we shall, in a week or two, republish the whole article, so that all our present readers may have the benefit of it.

Artificial Human Ears.—Never say a word about Yankee Ingenuity after this. Wooden nutmegs, wooden pumpkin-seeds, wooden axes, wooden ham, avaunt. We have a little man in our city who has beat the whole of our eastern ‘artists’—no one more nor less than Dr. Scudder, the Oculist, the same who is so celebrated in inserting artificial human eyes—and, by the bye, one whose inventive genius will, when put to the test, effect almost anything—but to the point. Dr. Scudder has recently succeeded in making an artificial Ear ; and to give to our readers an idea of it, we subjoin the following description :—A mould of a real ear is made of Plaster of Paris, in which is cast an artificial one of fluid Gum Elastic or India Rubber, which by exposure to the air becomes of the proper consistency. The ear is fastened on by a spring passing over the head, under the hair, and the place of jointure is not easily seen, particularly if the wearer be blessed with a goodly pair of whiskers. The artificial ear is then colored to suit the complexion of the wearer, and is of the same elasticity as the real ear. On the whole it is very ingenious, and no one but Dr. Scudder would ever have thought of such a thing. Gentlemen who have been ‘cropped or gouged’ can now have both deficiencies remedied by applying to the Doctor, who we verily believe

will yet undertake to build an artificial man. The case we mention of the artificial ear is the third Dr. S. has fitted.—*N. Y. Advocate*.

The Cholera in India and in Russia.—In some old Nos. of the Medical Intelligencer, a work formerly published in this city, and of which this Journal is a continuation, we find the following notices.

1. M. Moreau de Jonnes states, that from the year 1817 to 1823, this disease has traveled from the Molucca Islands to the coast of Syria, and from the mouth of the Wolga to the Isle of France :—the extreme points of its ravages being 1340 leagues asunder north and south, and 1900 leagues from east to west. He considers it an entirely distinct disease from the cholera morbus of western countries ;—a pestilential malady, traveling from place to place, and propagated from person to person. It operates on all ages and conditions, in all seasons, in elevated as well as low situations, under the influence of different climates and different diets. Three hundred and fifty one natives of India died of the cholera morbus in Calcutta, in February.

2. A correspondent at St. Petersburg informs us that the cholera morbus has made great ravages in Russia. It was brought to Astracan by the Persian caravans, traveled round the Caspian and the Euxine Seas, and carried off, during the last summer and autumn months, from 10 to 15,000 persons. The patients died with black vomit and in convulsions.—*Medical Recorder*.

The above items were published in the Intelligencer in the year 1824, and may be referred to in the second volume of that work.

Lozenges for Cold in the Head.—Spitta recommends the following preparation as beneficial in freeing the nasal fossæ from the feeling of obstruction in coryza.

R. Pulv. cubeb. ʒij.

Bals. tolut. gr. vj.

Mix well, and then add .

Ext. glycirrh. ʒj.

Syrup. bals. peru. ʒj.

Gum Arab. q. s.

Rub well together, and make lozenges of ten grains each. One of these, on being placed on the tongue, gradually melts, and imparts a pleasant aroma to the mouth, whilst at the same time the obstruction of the nose disappears.—*Journ. de Pharm.*

NOTICE.—Several valuable communications, among them a continuation of the interesting comments on the comparative healthiness of different occupations, will shortly appear. The Index for Volume VII. will be forwarded in an early number of the next volume.

Authors, publishers, booksellers, and others, who send copies of their works for review in our monthly notice of new publications, are requested to transmit such copies free of expense to the Editor, and as early as possible after their publication.

Whole number of deaths in Boston for the week ending Feb. 1, 19. Males, 10—Females, 9. Of croup, 1—burn, 1—delirium tremens, 1—consumption, 4—scarlet fever, 2—paralysis, 1—inflammation of the bowels, 1—lung fever, 3—inflammation of the lungs, 1—dropsy on the brain, 1—asthma, 1—apoplexy, 1—liver complaint, 1.

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